ENGINEERING NEWS-RECORD

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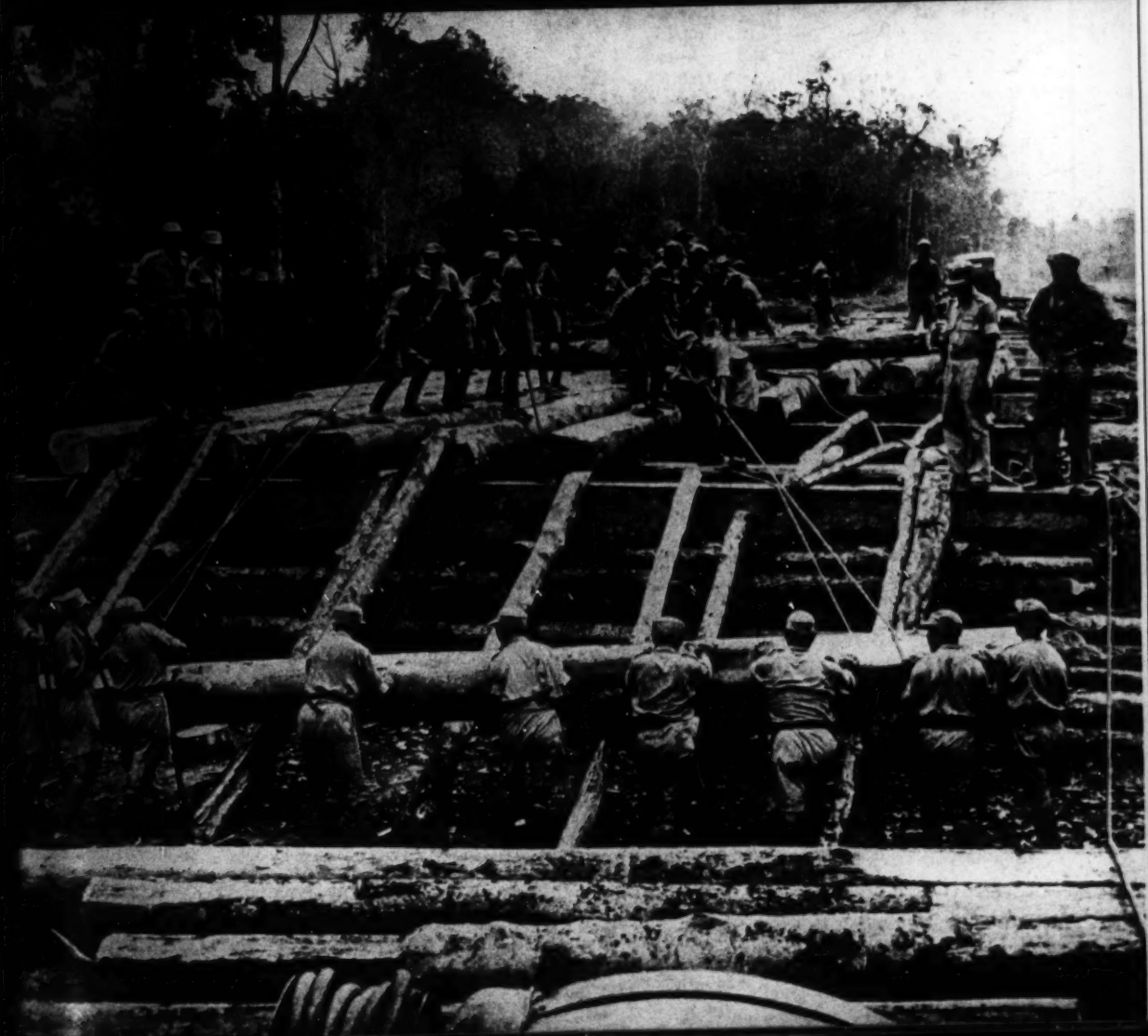
Chinese engineer troops aid U. S. forces constructing Ledo Road bridges.



[PUMP TIPS FROM ALLIS-CHALMERS—ONE IN A SERIES]

How to make PACKING Last Longer . . .

The *kind* of packing and *how* you use it have a lot to do with maintaining pe pumping efficiency. Here, at left, is a step-by-step outline of the correct way to i stall pump packing — saving you vital man-hours and money as well.

MOST PACKING TROUBLE traces back to *lack of "know-how"* in caring for stuffing boxes. This is wasteful — time and money-wise — especially since *correct* packing procedure is so simple for maintenance men to understand and practise.

Another class of trouble traces to misalignment of pump and motor. For when shaft is deflected, sleeve is apt to wobble — greatly accelerating packing wear. To eliminate this problem, A-C engineers developed, for many applications, the "Electrifugal" pump — in which both motor and impeller are mounted on *one* shaft, in *one* frame. This means fewer parts, fewer bolted connections — no chance for misalignment.

Regardless of type of pumps you use, here is an outline of correct packing procedure — plus a few tips on what to look for when trouble *does* arise . . .

▶ Make certain packing is suitable for service it must perform . . . that it's the right size and made of the right materials. Be cautious of so-called "all-purpose" packings. If in doubt, check with your pump manufacturer.

▶ Don't force in new packing against the old. It's apt to displace lantern ring and plug sealing liquid opening. First remove *all* old packing; clean stuffing box thoroughly; then insert new packing.

▶ Put each ring of packing in separately, seating it firmly before adding the next. Stagger adjacent rings so that joints are at 180° angle to each other. If lantern rings are used, be careful that sealing liquid openings aren't blocked as new rings are installed.

▶ After required number of rings have been inserted, tighten gland nuts. Gland should be taken up evenly to *finger-tightness*. If compressed too tightly, packing will burn o or sleeves become scored.

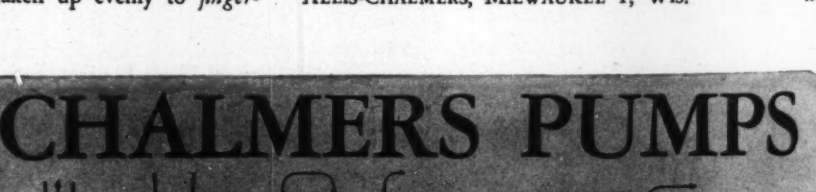
▶ Finally, until shaft turns over freely, operate pump f about 1-minute intervals — permitting packing to co Then put it into continuous operation.

▶ What to check for if packing wears too quickly — (1) Chec shaft sleeves. If badly scored they grind down packing ra idly; (2) Check position of lantern ring. It may be displace (3) If water seal piping is used, check liquid. If it contai grit a separate source of sealing liquid should be obtaine

▶ Send for your *free* copy of Allis-Chalmers' "Handboo for Wartime Care of Centrifugal Pumps". It's the basi easy-to-understand guide to efficient centrifugal pump mai tenance. Contains *no* advertising; applies to *all* make ALLIS-CHALMERS, MILWAUKEE 1, WIS. A 17

ALLIS-CHALMERS PUMPS

Allis-Chalmers builds all types and variations of pumps shown at right. Capacities from 10 to 150,000 gpm—heads to 2500 lbs.



The Week In Engineering and Construction

GINEERING NEWS-RECORD • AUGUST 31, 1944 • VOLUME 133 • NUMBER 9

Road planning progress s being made by states

o-thirds of federal money for postwar planning ains idle, as many state highway departments serve federal funds for construction.

the 60 million dollars of federal set up for planning, two-thirds ined idle as of last June 30, ac- ng to the most recent statement d by the Public Roads Administra- but, according to the American Builders Association, it is known most of the states which have ap- for little or no Federal planning are making good progress on planning.

e evident answer, the association is that many states for one rea- or another prefer to handle plan- with their own state funds, con- ng federal aid funds for postwar truction. For a year after the emer- y, the states may obligate their e of the $50,000,000 funds for r planning or construction. The million dollar fund is for planning and its use expires with the termi- n of the war emergency.

f the fifty million dollars earmarked highway planning by Congress June 1943, only $11,874,199 (24 per) had been allotted by last June 30 pecific projects. Of the ten million rs authorized in the Defense High- Act of 1941, $6,357,909 (63½ per) had been allotted. The total both funds awaiting allotment was 747,883.

ate highway departments have filed rs of intent for larger sums than shown above. Of the fifty million r planning fund, letters of intent, announced programs, totaled (fed- funds) $23,905,065, which is twelve on dollars more than the project lications. Of the ten million dol- planning fund, announced programs ed (federal funds) $7,556,168, or 00,000 more than had been filed in ect applications.

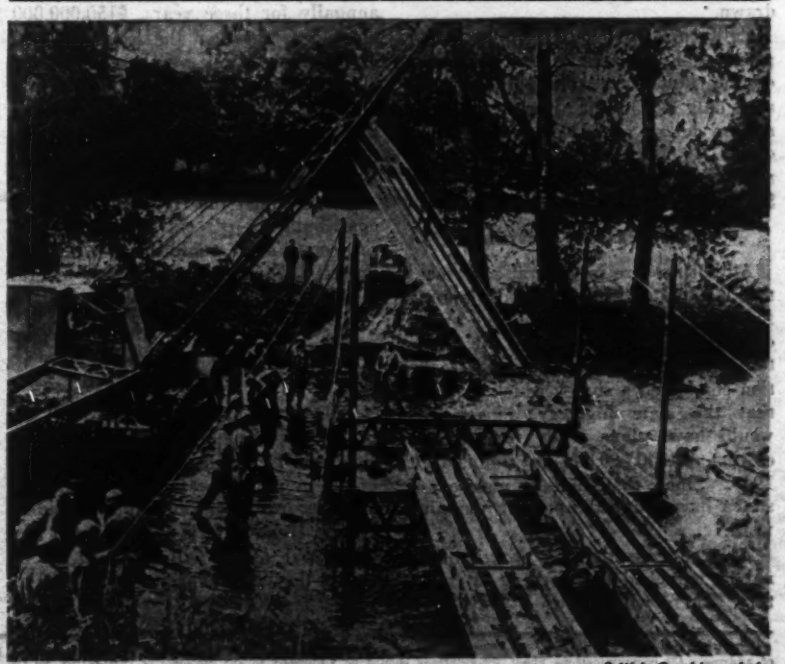
ctually, however, letters of intent only informal announcements or posals of anticipated use of funds. For instance, North Carolina has filed letters of intent, or announced preliminary programs, which would require $1,236,314 of federal funds. North Carolina had filed applications for specific projects totaling only $178,550 of federal funds. North Carolina, therefore, still has an unclaimed balance of her announced program of $1,457,764. This is a typical case.

In addition to the fact that many states prefer to use their own money for highway planning, another factor of indeterminate importance is the restriction of federal planning funds to projects on the federal aid systems. Both planning funds provided by Congress are confined to projects on the federal aid systems and to projects which state highway departments and the Public Roads Administration plan to add to the federal systems. Consequently, on thousands of miles of roads and urban extensions under jurisdiction of state highway departments, and on many proposed express highway projects in metropolitan areas, federal planning funds cannot be used.

Shortage of manpower

The shortage of manpower is a serious handicap, although many highway departments report that they are now making better speed than they were a few months ago. Highway departments are turning to expediencies they would not consider in normal

(*Continued on next page*)



British Combine photo

U. S. Engineers bridge Vire River

A portable crane swings a steel treadway into place as U. S. First Army Engineers build an emergency bridge over the Vire River in France. "Piers" are adjustable steel trestle bents. Where floating bridges are required, treadways are supported on pontons.

times. High school students, university students and older men and women are being utilized for much of the routine work in field survey parties and in office work. Discharged servicemen are being added to the staffs wherever possible.

Congressional action needed

Delay in establishing the federal government's postwar highway program undoubtedly has reduced the volume of highway plans. Congress so far has not been able to devote attention to federal highway legislation. The lengthy and searching hearings held by the House Roads Committee and the bill it reported out indicate that beyond main rural roads, substantial aid will be extended to county roads and city arteries.

It is obvious that highway departments can better plan their postwar programs and better make a selection of projects to design for immediate construction, and can get their matching funds ready, only when they know how much and on what basis the federal government will participate. Only small portions of their shares of federal funds have been taken up by some two-score states. As of June 30, seven states, Alabama, Colorado, Florida, Pennsylvania, Tennessee, Texas and Virginia, had applied for no funds. All of those states, however, are making excellent progress in getting blueprints drawn.

California, which is making good progress, had taken up less than half of the funds available. Illinois had used only $2,750 out of more than two million dollars available; Iowa, $40,000 of $1,230,000; Montana, $26,000 of more than a million dollars; Wisconsin, $60,000 of $1,175,000.

Yardstick not accurate

Authorities are in general agreement that the limited use of federal planning funds give no indication of the status of state highway planning. Last spring the American Road Builders Association conducted a survey which revealed that the state highway departments would have plans ready for projects costing $1,300,000,000 by January 1, 1945. Since that time a number of states have stepped up their planning work.

A large-scale highway program cannot be launched the morning after victory. There will be two V Days—one for Germany and one for Japan. Probably some highway construction will be permitted after the defeat of Germany. Also, during the in-between period, with war production cut back and workers available, designing projects and acquisition of right of way can proceed rapidly.

Everything considered, the highway future rests largely on federal participation in construction, and highway departments hope that its extent can be made known as soon as possible, and that it will be on a basis fully consistent with employment, economic and traffic needs.

Congress may act soon

That Congress is gradually moving toward consideration of federal highway aid for postwar construction is indicated by the introduction last week of a bill providing $650,000,000 annually by Senator Carl Hayden of Arizona. The bill bears the approval of the Committee on Post Offices and Post Roads of which Senator Hayden is a member.

A somewhat similar bill is pending in the House, introduced by Representative J. W. Robinson of Utah, chairman of the House Roads Committee. Both bills, however, will have to wait their turn until pressing over-all postwar legislation has been handled.

Senator Hayden's bill would provide federal highway aid of $650,000,000 annually for three years, $150,000,000 more per year than the Robinson bill. The Hayden bill authorizes $250,000,000 annually for the federal aid highway system, $200,000,000 for farm-to-market roads and $200,000,000 for principal streets in cities of 5,000 population or more.

States, under the Hayden bill, would contribute 40 percent of the cost of projects. That would provide a total annual highway program, with federal aid funds, of more than a billion dollars.

Pulverized anthracite coal will be used to replace sand in the filters at the Bachman treatment and pumping plant of the municipal waterworks at Dallas, Tex., according to Water Superintendent Homer Hunter. It is also reported that additional filters will be built to increase the plant capacity from 75 mgd. to 100 mgd.

St. Louis voters added funds for postwar work

St. Louis voters added $43,527,0 to the city's postwar projects fund the August primary, the American S ciety of Planning Officials reports. W money already available from earl bond issues and other sources, a to of $63,500,000 now is earmarked 165 projects to provide an estima 23,100,000 manhours for discharg war workers and returning veterans.

The 11 proposals with specific propriations approved in the recent mary include a new major airport, h pital improvements, increased protection facilities, sewer construct street improvements, new facilities the zoo, etc.

Largest majority was given the $9 000 appropriation for hospitals and stitutions. This amount in addition other funds on hand will prov $3,350,000 for improvement and exp sion of facilities at the city hospital, Negro hospital, city sanitarium, tub cular hospital, city infirmary and the Louis training school. More th $1,000,000 will be spent to build a h pital for the chronically ill.

Next two most popular projects the primary were the $800,000 bond sues for fire protection and $7,957,0 for sewer construction. Voters also proved the $7,800,000 asked for str improvements; $2,200,000 for a fi police electric alarm system; $7,50 000 for waterworks extensions; $1,7 000 for bridges and viaducts; $3,625,0 for parks and recreation; $750,000 the zoo; and the $250,000 for the museum.

The $9,897,000 suggested for airp development ranked fourth in voti interest. With the addition of t amount, the city now has a total $10,000,000 to spend for a new airp and $4,000,000 for the expansion of Louis-Lambert field.

The Board of Public Service will c tract with private firms for design engineering work to speed plans starting construction when peace is clared. An expenditure of $3,000,00 proposed for engineering.

If the original plan outlined by postwar projects committee is follow more than 60 percent of the $63,5 000 will be spent for labor, includ work in preparing a substantial rese of jobs before conversion of war pl is completed.

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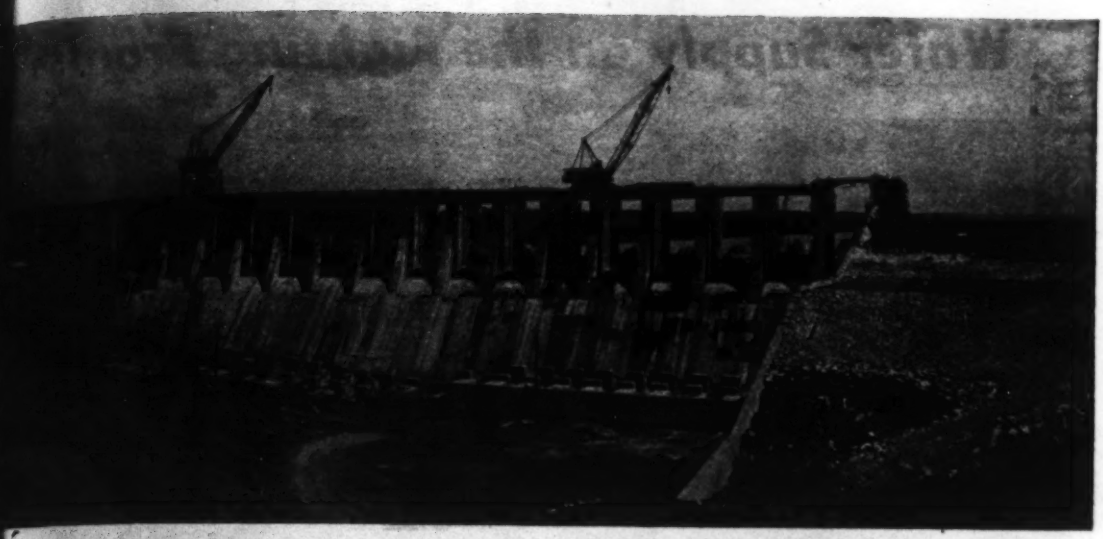


TVA's largest reservoir, at Kentucky Dam, being filled

...al closure of by-pass gates at Kentucky ... has been made, signifying completion ... main construction work started in 1939. ... dam, longest of 15 built by the Tennessee ...ey Authority, is a mile and a half in ...th and has a maximum height of 166 ft. ...ater in the 184-mile long reservoir is ...ng raised in easy stages as construction ...ditions permit. Gates were closed on Aug. ...nd sufficient water impounded by Aug. 18 ...nable the start of dry-out runs on the ...eration. Water now has been brought to ...level at the upper gate sill, 11 ft. below ...imum pool level, and will be held at that ...ation for a few days while the navigation ...nnel is carefully searched for any high ...ts. Water will then be raised so that a ...imum of 8 ft. is available for navigation. ...er some necessary reinforcement on a ...dge pier is completed, about Sept. 15, the water will be raised to a higher level.

The pool cannot be filled to full normal level until the Illinois Central R.R. is transferred to the dam about Dec. 1; full flood surcharge cannot be depended on until the steel from the I. C. bridge is utilized for a new crossing for the N. C. & St. L. R. R. sometime next spring. After that time, however, 4,100,000 acre ft. of usable storage will be available, enough to lower crests of floods at Cairo, Ill., by about 2 ft.

The construction of the dam required excavation of nearly 700,000 cu. yd. of rock and more than 6,000,000 cu. yd. of earth, and the placement of 3,856,000 cu. yd. of earth fill, 435,000 cu. yd. of rock fill, and 1,305,000 cu. yd. of concrete. Construction involved the relocation of 315 mi. of highways, raising of bridges and relocation of 45 miles of railroads required the handling of 15,000,000 cu. yd. of unclassified material as well as the placement of 50,000 cu. yd. of concrete. In addition, the work in the preparation for filling the reservoir involved handling 4,000,000 cu. yd. of earth in diking and drainage operations for mosquito control, as well as the clearing of approximately 50,000 acres.

C. E. Blee is chief engineer in charge of all engineering and construction work of the TVA; A. L. Pauls, construction engineer; George R. Rich, chief design engineer, and James S. Bowman is chief water control planning engineer.

Work at the Kentucky project is under the direction of George P. Jessup, project engineer. H. L. Broadfoot is construction engineer and B. S. Philbrick is construction superintendent at the dam. S. H. Smith is construction engineer in charge of work in the reservoir.

Connecticut warned of probable water shortage

The Connecticut Department of ...alth has warned against a probable ...er shortage, since deficiency of rain- ... is as much as 9 in. in some sections ...he state. It is pointed out that reser- ...rs in the winter of 1943-44 were ...er filled completely and throughout ...3 there was a shortage of rainfall. ...blic water supplies are not likely to ... exhausted since reservoirs have been ...pleted in the last three years to af- ...d ample capacity even in the face of ...y wartime demands.

...As a conservation measure people ...e been advised to refrain from neces- ...y use of water for such nonessential ...poses as lawn sprinkling. In the ...ineering field communities have ...n asked to undertake engineering ...eys now to determine methods and ...s for postwar water supply plans.

Louisiana issues bonds for Army-damaged roads

Sale of $2,000,000 in state highway bonds to provide a revolving fund for the repair of 400 miles of secondary roads damaged in Army maneuvers has been authorized by the Louisiana State Advisory Board. The bonds were part of a $10,000,000 issue that was provided in 1942.

Damage to roads has been estimated as in excess of $5,000,000, principally in Vernon, Rapids, Natchitoches and Sabine parishes (counties). The state will be reimbursed by the federal government as the work is done.

Highway director D. Y. Smith stated bids are being taken on repairs to parish (county) roads not part of the state system, damage to which will be repaired with $2,500,000 in federal funds earmarked by Congress for that purpose.

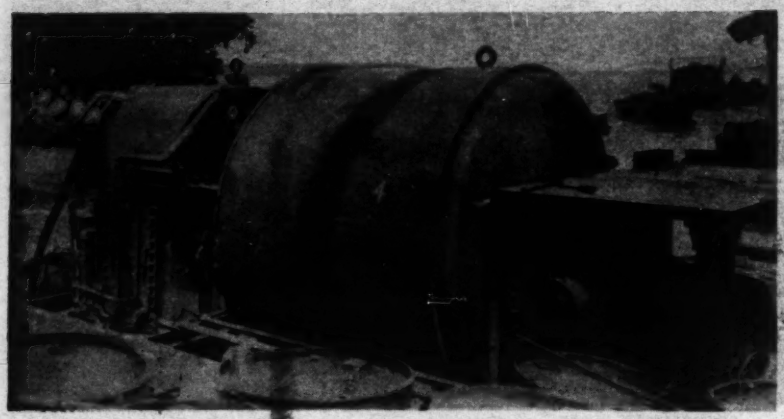
Reclamation program for postwar California

Promotion of a statewide reclamation program and a $40,000,000 rural housing project were advanced as means of reconverting California to peace time conditions at a recent San Francisco hearing of the United States Senate Committee on Small Business.

In consideration of the 1,650,000 additional workers drawn into California by war work, an agricultural reclamation program involving 31 projects and costing $605,000,000 was proposed by Michael W. Strauss, first assistant secretary of the Department of the Interior. Such a program would irrigate 1,689,000 acres of land, provide 164,000,000 man hours of work and create over 3,500 additional farms.

The California State Grange appealed to the committee for a $40,000,000 rural housing program.

Water Supply on the Fighting Fronts



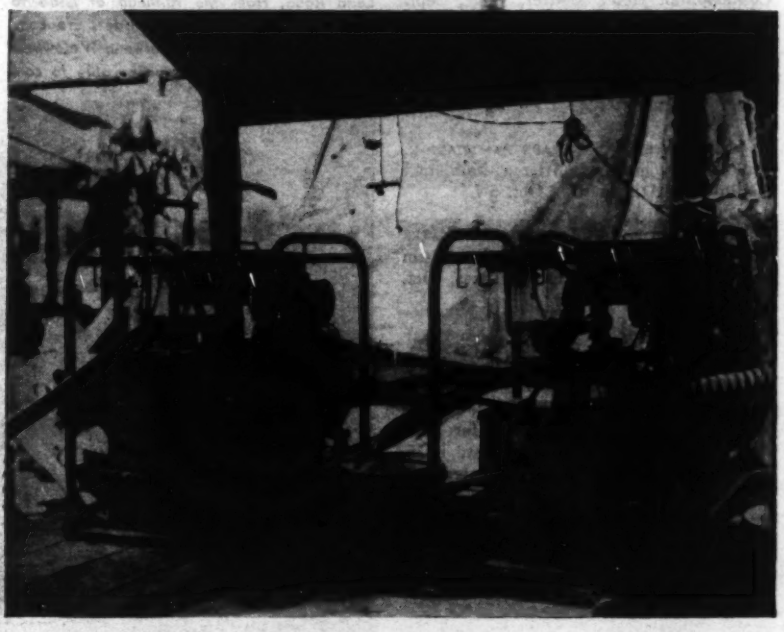
Providing a safe water supply for our troops as they move forward on new captured islands or continental areas is a primary responsibility for Army Engineers and Navy Seabees. For this purpose they have specially devised equipment whose compactness and mobility make it possible to cope with almost any situation from drilling wells to the distillation of seawater. A few examples of what is being used on our fighting fronts are illustrated on these pages.

Distillation unit for converting seawater into a chemically pure and potable water supply. Equipment of this type can produce up to 5,000 gal. per day. Diesel-type fuel oil is used for generation of steam that is passed through double-effect evaporators. A new type thermo-compressor unit is five times as efficient.

A mobile centrifugal pumping unit operated by a gasoline-driven engine, which is used in conjunction with the seawater distillation unit.

Rotary well-drilling rig (right) developed for the use of troops invading the European continent. Underground sources of supply, widely distributed at depths of 40 to 500 ft. in most parts of Europe, can be tapped quickly with this mobile equipment mounted on an 8-ton truck. The all-welded steel tower that supports the drills is hinged so that it can easily be lowered to a horizontal position. *Signal Corps photo*

ring at the base of a banyan tree led to the selection of this site for a water treatment plant on battle-scarred du. Navy Seabees installed pumps in the shed at the left, sheltered their portable purification units in the tent ile right, and provided elevated platforms for canvas water storage tanks (right background).



ble purification units (right) at Ndeke water point. Each unit in- es complete filtration and chlori- ng facilities and is equipped with wn gasoline power plant.

MEETINGS

National

AMERICAN PUBLIC WORKS ASSOCIATION, annual congress, Hotel St. Paul, St. Paul, Minn., Sept. 24-27.

INSTITUTE OF TRAFFIC ENGINEERS, 15th annual meeting, Sherman Hotel, Chicago, Ill., Oct. 1-4.

AMERICAN PUBLIC HEALTH ASSOCIATION, second wartime public health conference and 73rd annual business meeting, Hotel Pennsylvania, New York, N. Y., Oct. 3-5.

FEDERATION OF SEWAGE WORKS ASSOCIATION, annual meeting, William Penn Hotel, Pittsburgh, Pa., in conjunction with 17th annual conference of the PENNSYLVANIA SEWAGE WORKS ASSOCIATION, Oct. 12-14.

Regional and Local

NORTHERN MICHIGAN COUNTY ROAD COMMISSIONERS' ASSOCIATION, annual meeting, Cadillac, Mich., Sept. 7-8.

NORTH DAKOTA WATER AND SEWAGE WORKS CONFERENCE, 16th annual convention, City Auditorium and World War Memorial Building, Bismark, N. D., Sept. 12-13; jointly with the NORTH DAKOTA LEAGUE of MUNICIPALITIES.

NEW ENGLAND SEWAGE WORKS ASSOCIATION, fall meeting, Hotel Bancroft, Worcester, Mass., Sept. 13.

NEW ENGLAND WATER WORKS ASSOCIATION, annual meeting, Poland Spring House, Poland Spring, Maine, Sept. 19-22.

ROCKY MOUNTAIN SECTION, AMERICAN WATER WORKS ASSOCIATION, annual conference Cosmopolitan Hotel, Denver, Colo., Sept. 21-22.

NORTH CAROLINA LEAGUE OF MUNICIPALITIES, 36th annual conference, Winston-Salem, N. C., Oct. 4-6.

GEORGIA WATER AND SEWAGE ASSOCIATION, 13th annual meeting, Atlanta Municipal Auditorium, Atlanta, Ga., Oct. 5-7.

SOUTHWEST SECTION, AMERICAN WATER WORKS ASSOCIATION, Stephen F. Austin and Driskill Hotels, Austin, Texas, Oct. 17-19.

Change of date

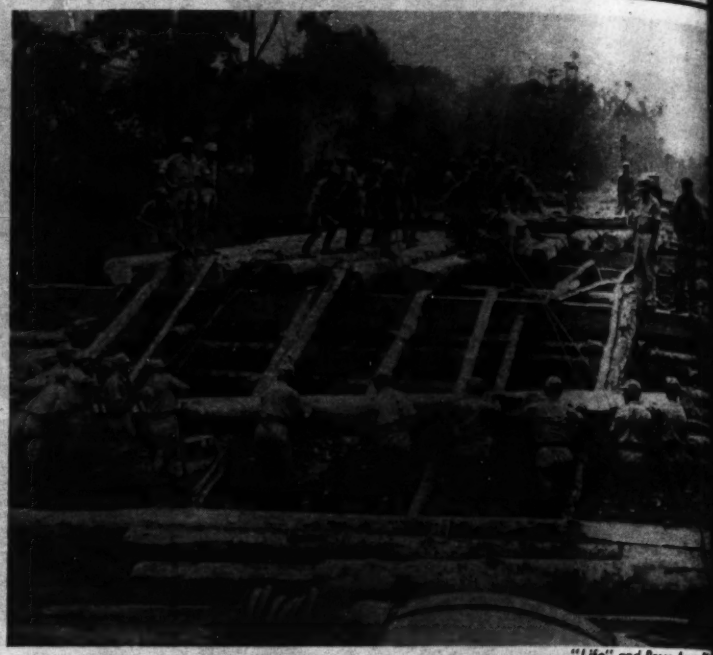
The date of the annual meeting of the South Dakota Water and Sewage Works Conference, originally scheduled for Sept. 19-20, has been postponed to Nov. 14-15. The meeting will be held in Watertown.

Cancellations

The fall meeting of the New York Section, American Water Works Association, has been cancelled.

The 1944 annual convention of the North Carolina Section, American Water Works Association, and the North Carolina Sewage Works Association will not be held, according to a resolution adopted by the Board of Trustees on July 25.

The 1944 annual conference of the W... ern Pennsylvania Section, American W... Works Association, and the Western P... sylvania Operators Association, schedu... for Pittsburgh, Pa., Sept. 13-14, has b... cancelled.



"Life" and Press Ass. P...

Chinese engineers bridge obstacle in Burma

Shown above are Chinese engineers constructing a hand-made wooden bridge across the Tanai Hka River; somewhere along the new Ledo Road, in the process of construction. The road replaces the old Burma Road, which was cut by the Japanese. It is a supply link between Burma and China.

Recently engineers under Brig. Gen. Lewis A. Pick finished the first 167 miles of the Ledo Road, from the railhead at Ledo to Walawbum. Now the roadbuilders are completing a 77-mile stretch between Walawbum and Mogaung, and will soon be able to continue from Mogaung to Myitkyina, only ... miles to the east. From Myitkyina the ... could take either of two routes into Chi... eastward to Yunnan Province through jag... mountains which rise above the Salween R... or, if the Japanese can be driven fart... south, it could go southward through the ... leys to Bhamo and from there join with ... old Burma Road.

Bulldozers, the "heavy artillery" of ... Army Engineers, carried the burden of ... grading work in the Burma-India border ... country, of which the picture below is typi...

ostwar housing study recommended
y National Committee on Housing

rrelation and coordination of all phases of the home building dustry and the governmental agencies is considered necessary.

ging a postwar home building in- y and program which will operate nously on facts established by st study and analysis, technological ces and improved methods of fi- the National Committee on g, Inc., has made public its mendations for a national hous- rogram and policy.

purpose of the recommendations, indicated, is to help correlate coordinate the activities of all sec- of the home building industry and governmental agencies concerned al, state and Federal—in an or- reconversion to peacetime produc- which will produce better homes communities. The goal was stated report in these words:

These recommendations are pre- d by the National Committee on g as a basis for the formulation long-term housing program for the ry. The postwar rush of build- to which all signs now point, can e a major force in the re-establish- of a sound peacetime economy, by the same process build better s for American families in more anent, better planned neighbor- and communities. To these ends objective must be a national hous- program and industry operating inuously on the basis of established market study and analysis; on d and improved financing; and on most forward looking technology."

e recommendations for a well- ded program grew out of the na- l conference on postwar housing by the committee in Chicago. , for the first time, all of the s and interests concerned, both e and governmental, took active in discussions of all phases of the lem. Subsequently a committee enting a wide range of housing in- , was appointed to prepare the mendations, based upon but not to the conference proceedings.

ting estimates of a postwar de- for new homes (based upon the ption of continuing high levels of loyment) ranging from 750,000 to 00 family units annually for at ten years, the committee suggested the application of certain stimulat- factors may increase this demand. include (1) a pent-up demand d by underbuilding since 1930 and of building during the war, (2) minimum standards of accepta- ble housing, (3) savings accumulated by individuals and the reservoir of investment funds held by institutions, (4) veterans home loan legislation, and (5) the possibility of liberalization of FHA mortgage insurance.

In the Committee's view the first postwar rush for new homes may constitute a danger requiring continued governmental controls, at least during the early stages. Whether the actual market for new homes will be 750,000 or 1,200,000 it is unlikely, continues the report, that production of new housing can be stepped up during the first year of peace more than 100 to 150 percent above the present capacity of 150,000 units a year. This may make the first postwar years a difficult, if not dangerous period, with consumer pressure creating a competition for materials and labor that could demoralize price structures, financing and marketing.

The Committee therefore believes that so long as a condition of unbalance continues a degree of control over production and marketing is essential. However, such controls should be progressively relaxed as promptly as production increases and should be discontinued as soon as balance is approached. The goal must be the prevention of a runaway market which would create a temporary boom followed by the inevitable slump.

• • •

Halifax Hospital Delayed

Lack of construction materials priority is delaying a start on the new 15-story Victoria General Hospital in Halifax, N. S. The building, the site of which is east of the present hospital of the same name, will be the highest in the Halifax district. It will be of concrete, steel, and brick, with a frontage of 300 ft. The main building will be six stories high, and on top of this will be a smaller six-story section. J. Wilson, of Halifax, is the architect.

British Combine Photo.

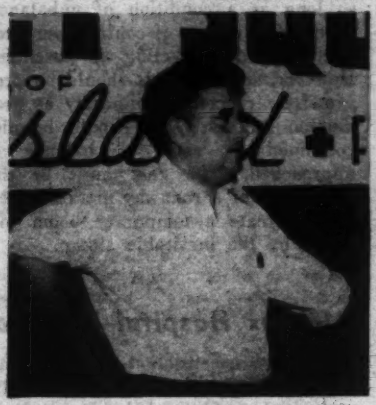
Tankdozers opened way through Normandy hedgerows

Stubborn German resistance based on the characteristic hedgerows of Normandy was finally overwhelmed by a new Engineer weapon known as a tankdozer. Consisting of a medium Sherman tank equipped with a bulldozer blade and manned by Engineer troops of armored army units, the machines cut through hedgerows or built ramps up over them, they tore through barbwire and they buried pillboxes.

A special periscope permits operation of the blade while the driver is completely protected by the armor of the tank. Moreover, the tank's usual firepower from its 75 mm. cannon and 50 cal. machine guns is not reduced. Should it be necessary to free the tank of the blade, a quick release mechanism actuated from inside the tank accomplishes this within a matter of seconds.

Developed by the Engineer Board in cooperation with manufacturers, the tankdozer went into quantity production only last December, although the idea dates from 1940, and pilot models were being built a year ago. It has seen service in Italy and in the Pacific as well as in France. The blade now being used on all tankdozers is a standard La Plant-Choate type for a D-8 tractor except for longer pushbarms and the hydraulic operating mechanism.

MEN AT WORK



W. J. GALLAGHER, director of public works for the city of Rock Island, Ill., pictured beside an emergency truck proving valuable to the city's fire department.

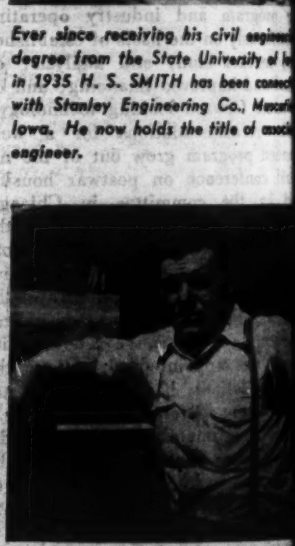
V. H. LEAR, general manager of the Muscatine, Iowa, municipal water and electric plant, tells the editor of meter testing practice at Muscatine.

Col. R. J. BURT, Jr. as commanding [o]cer of their activities at MacDill Fi[e]ld, Florida, is playing an important part [i]n the training of the Aviation Engineer B[a]ttalions, the Army's airbase construc[t]ion specialists.

Lieut. Comdr. W. E. DAVIDSON (left), of Oakland, Calif., and Comdr. JULIAN C. TATE were executive officer and officer-in-charge, respectively, of the 60th Naval Construction Battalion somewhere in the South Pacific when this picture was made. After construction of important airfields in which effective use was made of coral, Tate was transferred to a new command and "Dave" advanced to O. in C. of the 60th.

Ever since receiving his civil engineer[i]ng degree from the State University of Io[w]a in 1935 H. S. SMITH has been connect[e]d with Stanley Engineering Co., Muscati[n]e, Iowa. He now holds the title of associ[a]te engineer.

On a construction project at Clinton, Iowa, the four above are in charge for Weitz Company, Inc., general contractors of Des Moines. They are, left to right: ART. E. COSSENS, general superintendent, KARL WINKLER, engineer; DICK HESS, general foreman, and LOUIS LOHBERG, office manager.



A recent job of CARL BOELSEN, c[o]nstruction superintendent with Armco D[r]ainage and Metal Products Co., Middlet[o]wn, Ohio, was that of jacking several hu[n]dred feet of sewers into place for a Des Moi[n]es, Ia., industrial plant.

...s of reconstruction of a building at the Rock Island, Ill., arsenal hold the attention of ... MILLER (left), resident engineer for the Rock Island district, U. S. Engineers; A. W. ...PP (center), head of planning section, Rock Island district; A. P. RINELL (standing), ...er with Army Engineers; and E. KARLSON, superintendent for Lovering Construction Co., ...l, Minn., the general contractor.

...ing touches to the new DePaul Hospital at Norfolk, Va., are supervised by, left to right: ... SUNTER, resident engineer for James R. Edmunds, Baltimore, the architect-engineer; ...N MILLIMET, expeditor for M. Millimet & Associates, and Wm. M. Moore Building Corp., ... York; and W. A. WILSON, construction engineer for the Federal Works Agency.

...ting a few of the 100 water meters repaired daily by the meter repair shop, city of ...go, are, left to right: HARRY G. RICHARDS, shop foreman; MARK I. SHERIDAN, gen... ...ater foreman; and WM. E. DOWNS, JR., assistant engineer of waterworks construction, ...tment of public works.

Responsibility of the planning for the recent heavy construction program of the Wilmington, N. C., district, U. S. Engineers has rested on the shoulders of EDWARD SOUCEK (left), assistant chief of the engineering division, and T. J. HEWITT, chief of the division.

Twenty-six years of municipal service at Moline, Ill., is the record of A. E. ANDERSON, superintendent of the city's water department and city chemist.

Construction at Des Moines, Ia., of reinforced-concrete industrial building with slip forms required a 1,000-cu.yd. continuous pour and kept these two men mighty busy. They are: JOHN BAAB (left), carpenter foreman for James Stewart Co., Chicago, Ill., the general contractor, and PAUL L. KAISER, superintendent for this firm.

BRIEF NEWS

A new $1,000,000 bridge over the St. Joseph River, on US-31 at St. Joseph, Mich., is the most important post-war project planned in that section of the state. The present structure, known as the "Main Street Bridge," is in bad condition and long has been considered inadequate to handle the increasing volume of traffic.

The second most important project is the widening of US-31 between St. Joseph and Benton Harbor, and also between the two cities, and South Haven. It is planned to make it a four-lane highway.

Chicot County, Ark., soon is to lose one of its claims to fame—the world's longest power transmission line, crossing at Leland Neck over the Mississippi River.

This river crossing is more than 6,000 feet long, and the three aluminum electricity conductors are swung between two towers, 560 feet high. The towers rest on ball and socket bases so that the tops can move forward or back as heat and cold expand and contract the conductors.

When one of these high towers was built six years ago, its base was 2,400 ft. from the Mississippi River. But the river has eaten away the bank until it is now only a few feet from the tower, and in another few months there might be danger of the tower falling into the river.

The Arkansas Power and Light Co., which constructed the towers and crossing to connect with the Mississippi Power and Light Co. system, is rerouting its 110,000-volt transmission line so it will cross on the Greenville bridge, according to Milton Johnson, Lake Village manager for the company.

Wichita Falls, Tex., has issued $3,500,000 worth of waterworks revenue bonds, the funds to be used to create a lake for the municipal water supply from the Little Wichita River.

Lake Kemp supplies Wichita Falls with plenty of water but it has proved unsatisfactory because of large quantities of soluble minerals in its drainage area.

The Associated General Contractors of America, Inc., of Houston, Texas, have bought a 150-foot-square site containing a two-story frame structure for their new headquarters. The association will build a modern office building on the site after the war.

Named after Gibb Gilchrist, president of Texas A & M College is "Gilchrist Curve" a long S-curve on U. S. highway 290, west of Austin, Tex. Mr. Gilchrist was formerly at the head of the Texas highway department and when the district engineer proposed to relocate the road to eliminate the curve Mr. Gilchrist vetoed the idea because it would have destroyed the view of two beautiful hills. So the curve at the beauty spot is named after him.

The North Carolina State Highway Commission has just approved a budget of $11,500,000 for the maintenance of state and county highways during the fiscal year 1944-45. Of the amount, $3,471,940 has been set aside for the maintenance of state highways, $185,000 for bridge maintenance, $48,000 for bridge tenders, and $300,000 for reserve. For county roads, $6,189,570 has been set aside for maintenance, $683,750 for bridge maintenance, $562,500 for reserve and $54,180 for bridge tenders.

Col. A. B. Jones, U. S. district engineer, Jacksonville, Fla., says that engineering investigation and planning for the barge canal across the state from near Yankeetown to the St. Johns River is nearing completion. He adds:

"The first set of complete plans, which were for the St. Johns River lock are now on their way to the chief of engineers. I hope that by October 1, we will be through. We will then close down Camp Roosevelt, headquarters for the project.

"This will put us in a position, should Congress make funds available, to start work on the canal in a few weeks."

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Concrete placing starts on Sweetwater River Dam

Placement of concrete for the $1,200,000 second Sweetwater River Dam, originally scheduled April 1 but repeatedly delayed by excavation difficulties in reaching bedrock formation, began recently according to the California Water and Telephone Co.

The structure, in a rugged, isolated region where the Sweetwater River rushes down from the mountains east of National City, will have an impounding capacity of 27,000 acre-ft. Construction started last September and will be completed next summer, although the dam, 215 ft. high and 600 ft. across, will go into limited operation early in 1945 to meet expanding needs of National City, Chula Vista and adjacent southern San Diego Bay areas.

Ohio tests road markers

Readability of state highway traffic signs being determined by a series of comparative tests by the Ohio Department of Highways in conjunction with the Federal Public Roads Administration, according to H. G. Sours, director of highways. Motorists are being used as the observers and the experiment is being conducted over a representative section of state highway.

Thirty-six test signs have been erected along a 5-mi. course laid out on State Route 161 east of Worthington in Franklin County. The letters on the signs are 4, 8 and 12 in. high and they vary from old block type letters to the more recent curved styles. There also is a variation in the spacing of the letters in the words.

Each observer is driven over the course at 25 m.p.h. and to the recorder at his side he calls out the words on the signs as soon as they become visible. The recorder estimates, with the aid of stakes placed at 50 ft. intervals, the distance from that point to the location of the particular sign. Both men and women are being used as observers to represent a cross section of the driving public, and observations will be made at night as well as by day until the required number has been completed.

The experiments are being conducted on behalf of the joint committee on Uniform Traffic Control Devices, which consists of representatives from the American Association of State Highway Officials, the Institute of Traffic Engineers and the National Conference on Street and Highway Safety. The Ohio highway department is being represented by the Division of Traffic and Safety.

Big road contracts let by Texas highway dept.

Contracts for nearly $2,000,000 worth of highway construction, the largest single group since Pearl Harbor, were awarded Aug. 3 by the Texas Highway Commission.

The largest contract went to Bell & Bracon of Amarillo with a low bid of $444,938 on building 15 mi. of grading, structures, stabilized base and hot mix asphaltic concrete pavement on U. S. highway 287 from Stratford to the Oklahoma line, through Dallas and Sherman counties.

Construction Communiques

Engineering news from the battlefronts

Pontoon Battalions—Formation of [illegible] Battalions, comprised of 1,153 [illegible] and Civil Engineer Corps [illegible], has been announced by the [illegible] of Yards and Docks.

These Seabee battalions staffed with [illegible] personnel will be trained in [illegible]igation and seamanship. Their job [illegible] be to man Rhino pontoon ferries [illegible] transport equipment to the beaches [illegible] invasion landings such as they did [illegible] Normandy.

Previous to the organization of these [illegible]talions, the Seabees and their Civil [illegible]gineer Corps officers served in small [illegible]chments of approximately 270 men [illegible]. The larger units reflect the in[illegible]ased importance of pontoons in am[illegible]bious landings as well as a stream[illegible]ng of the organization of the pon[illegible]n crews.

Developed by the Bureau of Yards [illegible] Docks, pontoons have found their [illegible]t dramatic utilization as causeways [illegible] ferries carrying supplies over shal[illegible]w waters between invasion fleets and [illegible]ly won beachheads. Until the in[illegible]ion of Normandy, the principal [illegible]thod was to string the pontoons into [illegible]neuverable causeways which could [illegible] stretched from the ramp of a land[illegible] ship to shore. At Normandy, they [illegible]re put together into Rhino barges, [illegible] pontoons wide and 30 pontoons [illegible]g, which were used as self-propelled [illegible]ries. To the Seabees fell the task [illegible]riding the Rhinos in—invariably un[illegible]r hazardous conditions due to enemy [illegible]orts to smash them.

Under the new organization, the Pon[illegible]n Battalion will consist of 24 pla[illegible]ns under the command of 59 Civil [illegible]gineer Corps officers. Six other [illegible]cers, including dental, medical, and [illegible]pply officers and a chaplain, complete [illegible] complement.

The battalions, of which two already [illegible]e been organized, undergo six weeks [illegible] primary training at the Bureau of [illegible]rds and Docks' Advance Base Prov[illegible] Ground near Davisville, Rhode [illegible]nd. Here they are instructed in [illegible]manship, in the maintenance and [illegible]air of the inboard and outboard pro[illegible]sion units for pontoon barges, in [illegible] assembly of pontoons into various [illegible]ts and in visual signaling.

Following this primary training, the [illegible]talion is given five weeks of instruc[illegible]n in practical operation of pontoon [illegible]r under all conditions of wind and [illegible]f at Point Judith, Rhode Island. [illegible]ctice landings are made both during [illegible]light and at night. Here also, Seabees are given intensive courses in plane and ship recognition and in manning of antiaircraft guns.

In choosing personnel, efforts are made to enroll men who can swim. Additional swimming instruction is given, including teaching the men water safety rules, utilization of clothing, use of equipment, such as buoys, and how to minimize the danger of swimming through burning oil.

Personnel also is selected from the youngest and sturdiest of the Seabees. Experience, such as that at Normandy, has shown that oftimes pontoon "riders" are likely to suffer long periods of exposure to wind and surf. In one case, a crew went without relief for more than 60 hours.

Praise for Seabees—On his recent trip to the Pacific President Roosevelt made this little speech to the Navy Construction Battalion:

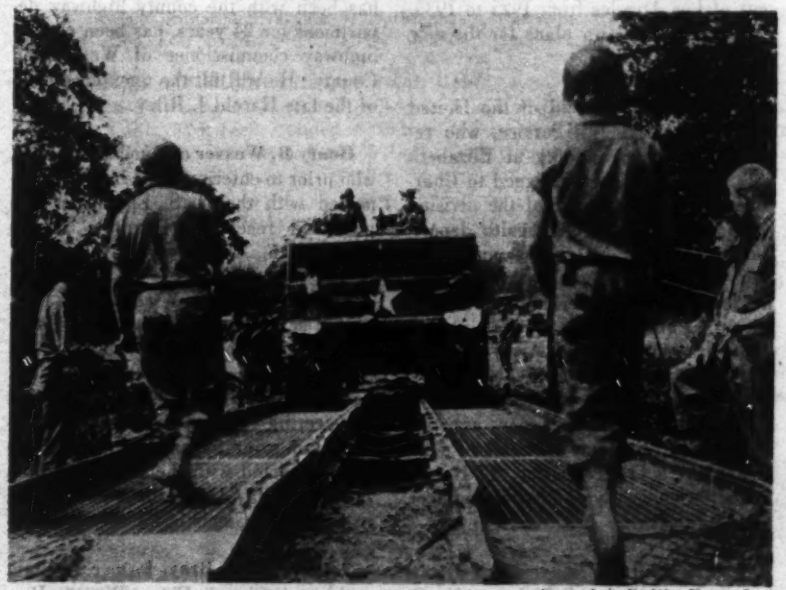
"Boys, I just want to say Howdy Do. This is the first bunch of Seabees that I have inspected or looked at overseas. I think you are known on every ocean and every continent—all over the world. The Seabees have come forward as an institution more quickly than any one I know of in the whole of our history, and all of us back home and out at the front are mighty proud of you. It is good to see you."

Palestine—Capt. Jonathan C. DeFoe, serving abroad with an ordnance battalion, has been cited for "exceptional meritorious conduct," and decorated with the Legion of Merit. The citation read, "He set up and supervised the operations of costly and complex machinery and equipment of engineering for the heavy shops at Tellitwinsky, Palestine."

DeFoe was an engineer with the Socony Vacuum Oil Co., Augusta, Kan. He received his engineering degree from Missouri University.

Italy—The longest bridge ever built by a single company of Army engineers was constructed on a vital highway in Italy in 14 days by a company commanded by Lieutenant R. S. Altman, Johnsonville, S. C., a correspondent says in the Atlanta "Journal." As a peacetime job in the states, the writer observes, it would have taken months, not days, to do the job. He regrets that the Fifth Army won't let him give length and location of the span.

France—American aviation engineers were building airdromes in southern France the day after the invasion. The cooperation of French farmers, who showed the engineers where minefields were located, was credited officially with saving many precious hours—and possibly many lives—in the task.



Acme photo for War Picture Pool

Engineer bridges keep Army rolling in France

Aiding the rapid advances of American forces in France, Yank engineers quickly repair and rebuild roads and bridges wrecked by the retreating enemy. Here a simple span bridge of steel treadway section gets a crawler truck over a bridge.

MEN AND JOBS

H. W. L. Doane, of Halifax, N. S., for the past 13 years manager of the Standard Paving Maritime Co., has been appointed engineer and manager of the recently organized Halifax Public Utilities Commission. This body is to take over and operate the Halifax water system. The works department of Halifax had previously been in charge.

Lt. Comdr. L. F. Southerland, of the Eighth Naval District headquarters public works office, has been made officer in charge of construction of the 1000-bed government naval hospital to be built at Houston, Tex. Plans are being prepared for the hospital by Finn, Cummins & Taylor, architects and engineers, but it is not yet known when actual construction will begin.

Formerly chief harbor engineer for the port of Los Angeles, **George F. Nicholson** has been promoted from commander to captain in the U. S. Naval Reserve. Capt. Nicholson entered naval service as a lieutenant commander in 1941 and is now serving as officer in charge of construction of several naval facilities in the San Francisco Bay area and as Navy Department consultant on harbor development for West Coast ports.

Before entering the service he undertook a program of modernization for the port of Los Angeles from 1925 to 1933, and in 1939 drew up plans for the new port of Long Beach.

Capt. J. Frank Field of the United States Public Health Service, who recently has been on duty at Elizabeth City, N. C., has been assigned to Charlotte, N. C., as director of the division of sanitation of the city health department. Captain Field was graduated from the University of Iowa with a B.S. degree in civil engineering and has been with the Public Health Service since being released from the Army on July 28, 1942.

Col. D. R. Wimer is now assistant engineer, U. S. Army Forces in Pacific Ocean areas, Fort Shafter, T. H. He has additional duty as district engineer, Honolulu, T. H.

Guy E. Whitman has resigned as superintendent of the Goldsboro, N. C., water department to become city manager of Roxboro, N. C. He has been superintendent since 1933 and for 10 years prior to that served as city engineer. He received his engineering degree at the University of Alabama and did post-graduate work at the University of Illinois.

Lt. Col. John H. Anderson, district engineer for the U. S. Engineers at Galveston, Tex., has been given duties overseas.

Fred V. Blucher, city engineer and superintendent of public works of Corsicana, Tex., has resigned to care for private business.

Conrad Peterson, Glendive, Mont., maintenance engineer for the state highway department for many years, has been engaged as city engineer at Sidney, Mont. The former city engineer, H. J. Hale, is in the armed forces.

William C. Olson of Raleigh, N. C., has been named consulting engineer on plans for enlarging the city water filtering plant at Hickory, N. C.

John Daniel, project engineer with the Florida State Highway Department, has resigned to become city engineer in Panama City. Daniel has been with the road department for many years. Previously he had also worked with the Louisiana highway department.

Arthur Becker, Slinger, Wis., who has been with the county highway department for 24 years, has been elected highway commissioner of Washington County. He will fill the unexpired term of the late Harold J. Riley.

Henry B. Weaver of Burlington, N. C. who prior to entering the Army was connected with the U. S. Engineers, was promoted recently to captain at the Birmingham, Ala., Army Air Field.

Maj. Robert L. Wicker has been named acting post commander at Camp Davis, N. C., where he is director of the intelligence and security division. A native of Sanford, N. C., he studied civil engineering at North Carolina State College and prior to entering the service was connected with the North Carolina State Highway Department and the U. S. Coast and Geodetic Survey.

Lt. Lester W. Bray, former assistant resident engineer, Camp Butner, Durham, N. C., has been appointed resident engineer to succeed **Major Ray Warren.**

The village board of trustees of South Orange, N. J., has voted to engage **Russell Van Nest Black,** consultant of the New Jersey Planning Board, to chart a master plan for the future development of the community.

Jerry C. Olson, formerly in charge of the Franklin, N. C., office of the U. S. Geological Survey, and **W. R. Griffin** stationed at Spruce Pine, have just been placed in charge of a new branch office of the survey set up at Shelby, N. C., for mapping mica mines in the Piedmont region of North Carolina.

Capt. Leslie N. Boney, public relations officer for the Wilmington district U. S. Engineer office since early in 1941, has been assigned to Fort Belvoir, Va., and has been succeeded by **Lieut. W. Heard.**

J. Royal Kornegay of Raleigh, N. C., has been appointed acting district engineer of the Farm Security Administration to replace **F. C. Vierk,** who has resigned to return to private business at Landing, Ill. Kornegay will serve in Arkansas, Louisiana and Mississippi according to Regional FSA Director A. D. Stewart of Little Rock, Ark.

Earl J. Nesbitt, of Old Fort, N. C., engineer in civilian life, recently was promoted to colonel in the Mediterranean area where he is serving as staff officer with the allied air forces.

Colonel Nesbitt formerly was associated with the North Carolina State Highway Department and the Tennessee Valley Authority. After serving six years with the Civilian Conservation Corps in southern and western states he entered the Army as a first lieutenant in September, 1940. A graduate of the North Carolina State College School of Engineering in 1931, he has been overseas since December, 1943.

R. B. Hodgson, former engineer with Brown & Root, contractors of Houston, Tex., has been promoted from major to lieutenant colonel. He is with the Engineer Corps in the India-Burma-China area.

M. F. Linnan, city engineer of Wauwatosa, Wis., has been appointed director of public services of that city, a newly created office which will coordinate street lighting, street repairs, garbage disposal, sewers, water and other public utilities.

Hayden B. Christie, of Durham, N. C., recently named city manager of Roxboro, N. C., to succeed the late Percy Bloxam, has resigned to return to Durham as assistant engineer with the city department of public works.

Missouri development along TVA lines sought

A bill (S2089) has been introduced Congress and referred to committee establish a Missouri Valley Authority provide for unified water control and source development on the Missouri ver. The bill is based on the Tennes- Valley Authority Act and was intro- ced by Senator James E. Murray), Montana.

According to Murray the Missouri tershed embraces a territory of 530,- sq.mi., 17½ percent of continental S. where floods in the past two years ve cost $100 million. In presenting the Mr. Murray referred to the current k of coordination between the Corps Engineers, interested in flood control d navigation, and the Bureau of clamation, interested primarily in the 00,000 acres of arid land in the up- part of the valley. The MVA bill, it is to be known, is designed pri- rily to coordinate all of the interests d activities on the entire Missouri tershed. Administration would be tered in a federal agency having its dquarters in the region and respon- le directly to Congress and the Presi- nt.

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Construction services ceilings revised

The construction industry, after gust 26, 1944, may add to former ilings for construction services in- eases in wage costs since October 3, 42 that have been approved or au- orized by the Wage Adjustment ard, National War Labor Board, or conomic Stabilization Director, the PA announced recently.

Although industrial and commercial ilding has declined from war peaks, e remaining volume, approximated at ,500,000,000 for 1944, makes it im- rative, in OPA's opinion, that price ntrol for the industry be continued. lmost half of the estimated volume of 44 business for the industry concerns pair and maintenance work.

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Lowest interest bid received by Houston, Tex.

On August 16, Houston, Tex., re- ived the lowest interest bid in its story when it offered $570,000 worth storm sewer, general improvements d park bonds for bids. The low in- rest rate bid was 1.1506 percent. It as submitted by Louis B. Henry of allas, as representative of a syndicate. The Houston City Council accepted e bid on August 18.

Sewage plant approved for Norfolk, Va.

Presidential approval has been given for a federal allotment of $2,829,850 to finance the construction of a sewage treatment plant at Norfolk, Va., and additional sewer lines in the vicinity of Hampton and Cradock, Va., according to C. L. Vickers, regional director of the Federal Works Agency.

The project, sponsored by the Hampton Roads Sanitation District Commission as part of its "overall plan" for the collection and disposal of sewage in the Hampton Roads area, is a portion of a $10,000,000 sewerage construction program for which federal aid has been sought by the commission.

The work will include the construction of a 13-mgd. sewage treatment plant on a site near the Army Supply Base in Norfolk and installation of approximately 67,500 ft. of sewer mains in Elizabeth City County to extend the North Shore interceptor sewer from Algonquin Road through Hampton to Buckroe Beach. The addition to the North Shore interceptor sewer will require the construction of 10 small pumping stations.

The Cradock section of the project calls for the installation of about 14,000 ft. of 14 to 20-in. pipe, mains, and six pumping stations.

JOBS OF THE WEEK

HOSPITAL, Perry Point, Md.

Veterans Administration, Washington, D. C., awarded contract for constructing Acute Buildings, laundry and facilities at Veterans Hospital to William R. Goss Co., Chicago, Ill., at $1,039,000.

PLANT, West Point, Miss.

Defense Plant Corp., Washington, D. C., awarded a contract for loading plant at Gulf Ordnance Plant to Foster & Creighton Co., and Oman Construction Co., Nashville, Tenn. The estimated cost is $3,000,000. Procter & Gamble Co., Cincinnati, O., are the operators.

HIGH PRESSURE STEAM PLANT, Savannah, Ga.

Union Bag & Paper Co., Savannah, has awarded a contract for the construction of a high pressure steam plant, power and generating station, to Rust Co., Birmingham, Ala. The estimated cost is $1,500,000.

ORDNANCE PLANT IMPROVEMENTS, McGregor, Tex.

National Gypsum Co., care of Bluebonnet Ordnance Plant, McGregor, awarded a contract for asphalt and concrete paving, utilities, and railroad lines at heavy shell ordnance plant, for U. S. Engineers, Galveston, to James T. Taylor & Son, Fort Worth, at $1,467,619. Defense Plant Corp. will finance.

DREDGING and FILLING, Hunters Point, Calif.

Ben G. Gerwick, Morrison-Knudsen Co. and Ford J. Twaits Co., San Francisco, Calif., have been awarded a contract for dredging and filling at Naval Dry Docks, by Bureau of Yards & Docks, Navy Department, Washington, D. C., at $1,690,000.

AIRPORT, Idlewild, N. Y.

Circle Construction Corp., White Plains, N. Y., has been awarded a contract for grading 2,500,000 cu. yd. fill, contract 6, at Idlewild Airport, by the Department Marine & Aviation, New York, N. Y. The estimated cost is $725,000.

IMPROVING AIRPORT, Fairfield, Calif.

U. S. Engineers, Sacramento, Calif., awarded a contract for stabilizing shoulders for runways, taxiways, relocating access, avenue, seeding spoil areas, and clear zones at Fairfield-Suisun Airfield to J. A. Casson Co. and N. M. Ball Sons, Hayward, at $948,943.

HOUSING, Newark, N. J.

Agostini Brothers Building Corp., New York, N. Y., was the lowest bidder for 150 housing units, when Newark Housing Authority, Newark, opened bids for Public Housing Administration. Base bid (1) was $773,563, Base bid (2) $749,563. W. E. Lehman, Jr., Newark, is the architect.

HOSPITAL, Limoilou, Que.

E. Frenette, Quebec, Que., awarded a contract for hospital addition by Reverend Sisters of St. Francis, Limoilu. The estimated cost is $800,000. G. F. Caron, Quebec, is the architect.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 13.

OBITUARY

George J. Atwell, president of the George J. Atwell Foundation Co., died in New York City on August 28 at the age of 69. Mr. Atwell, who began his career in the construction business at the turn of the century when he hired a truck to engage in minor excavation work, became the head of an organization that built the foundations for some of the most imposing structures in New York. These included the Rockefeller Center and Hotel New Yorker projects as well as the excavation for the Queens Midtown Tunnel approaches.

Mr. Atwell was one of the sponsors of the unofficial club known as the "Sidewalk Superintendents," whose objective was to cater to public curiosity in excavation operations by providing observation platforms on construction jobs. In addition to directing the affairs of his own company he was a director of Mason, Atkinson Kier & Co., and on the board of several banking and insurance companies.

Howard B. Coleman, 60, a civil engineer with the New York State Highway Department for 35 years, died at Poughkeepsie, Aug. 25.

John Sweeney, 58, construction engineer of the East Yard of the New England Shipbuilding Co. in South Portland, Me., died at Paris, Tenn., Aug. 16.

A graduate of the U. S. Naval Academy in 1905, Sweeney was recognized as one of the country's leading tidewater engineers. After early experience in harbor and dock problems in Canada, Sweeney returned to the United States and became active in construction projects of the World War I period. When the 'Quoddy project for harnessing the tides of the Bay of Fundy was undertaken, Sweeney returned to Maine and was made engineer in charge of all the foundation investigation.

George C. Lee, 62, distribution supervisor of the Tampa, Fla., city water department for the last 10 years, died Aug. 17.

Earl Banister, 65, president of the Merritt-Chapman & Scott Corp. marine salvage, contracting and engineering concern, died Aug. 22.

Mr. Banister from 1906 to 1913 was with the Burt Portland Cement Co., Bellevue, Mich.; the Burt & Brabb Lumber Co., Ford Ky., and the Marshall-Wells Co., Duluth, Minn. In 1913 he joined the Whitney Brothers Co. of Duluth, and eventually became treasurer.

The company was absorbed by the Merritt-Chapman & Whitney Corp., which in turn, was absorbed by the Merritt-Chapman & Scott Corp. in 1930. Mr. Banister retained his position as treasurer with the consolidated organization. Later he became vice-president and on Feb. 23, 1939, president to succeed the late Gwin A. Whitney.

Harry Mierswa, 55, president and organizer of the Mierswa Construction Co., died in Milwaukee, Wis., Aug. 18. Since 1924, he has been engaged in the construction of water mains and sewer systems in Milwaukee County.

T. L. James, 65, nationally known builder and contractor of Ruston, La., died recently. In recent years the James companies built many of Louisiana's highways and bridges, developing oil fields, raising levees along the Mississippi River and making an outstanding contribution to the war in building army camps, airbases and training fields.

Sherman W. Bowen, 67, construction engineer and former vice-president of the Fruin-Colnon Contracting Co., St. Louis, Mo., died Aug. 19. He was regarded as an expert on foundations. He joined the Fruin-Colnon organization in 1916 and was made vice-president in 1927. He retired about a month before his death. A graduate of Washington University, he was a member of the St. Louis Engineers' Club, St. Louis Academy of Science and the American Society of Civil Engineers and was a fellow of the Royal Society of Art, London, England. From 1901 to 1914 he was employed by the consulting engineering firm of Brenneke and Fay. From 1914 to 1916 he was an engineer for the St. Louis Water Department.

William Pralle, 54, assistant city engineer in the sewerage department of Houston, Tex., since 1928, died Aug. 10.

Edward F. Berry, 54, head of the civil engineering department of the College of Applied Science at Syracuse University, died Aug. 28.

Born in Fredericton, N. B., Canada, Professor Berry was graduated from the University of New Brunswick and studied engineering at Lehigh University. He taught at Lafayette and Lehigh Universities and held engineering posts with railroads in Canada and the United States before he joined the Syracuse faculty in 1920.

Lieut. W. B. Fries. Word has just been received that Lieut. Fries, of Woodhaven, N. Y., was killed in action recently. He had received the award of the Silver star for gallantry in action in Italy last April.

Lieut. Fries was a graduate of Cornell University in Civil Engineering, class of 1937, and was a member of the American Society of Civil Engineers, Chicago section. For several years Mr. Fries served as sales engineer in the water and sewage works department of Crane Co., Chicago.

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Alaska-Siberia tunnel proposed by engineer

An inter-continental highway linking Alaska and Siberia and thereby forming a land link with all of the continents except Australia was proposed in Tacoma, Wash. recently (July 21) by Donald MacDonald, chairman of the Alaska Highway Committee of the Pacific Northwest Trade Ass'n, and one of the original sponsors of an Alaska highway.

Mr. MacDonald, now on leave from wartime duties with the Army Engineers in Seattle, said that prior to World War II the Soviet Union had planned a highway to the tip of Siberia, 57 mi. from the Alaska coast, but that construction of the project was temporarily blocked by the outbreak of war.

Expressing the belief that the early postwar period will "provide a golden opportunity for bringing the plan to fruition", Mr. MacDonald described as entirely feasible the proposed project which would include the construction of a tunnel under Bering Strait.

WEEKLY CONSTRUCTION SUMMARY

CONTRACTS

Continental U. S. Only
(Thousands of Dollars)

	Week Ending Sept. 2 1943	Aug. 24 1944	Aug. 31 1944
Federal	$51,144	$27,641	$46,911
State & Municipal	3,776	4,511	6,104
Total public	$54,920	$32,152	$53,015
Total private	6,754	5,157	7,267
TOTAL	$61,674	$37,309	$60,282
Cumulative 1944	(35 weeks)		$1,261,642
1943	(35 weeks)		$2,285,763

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	1943 35 Weeks	Cumulative 1944 35 Weeks
NON-FEDERAL	$275,140	$334,355
Corp. Securities	17,408	91,845
State & Mun.	97,599	101,717
RFC Loans	9,000	57,790
FPHA Loans	3,133	.....
REA Loans	20,000	20,000
Fed.-Aid Hwy.	128,000	63,000
FEDERAL	$2,653,838	$1,263,800
TOTAL CAPITAL	$2,928,978	$1,598,155

ENR INDEX NUMBERS

Index base=100		1913	1926
Construction Cost	Aug. '44	300.42	144.41
Building Cost	Aug. '44	236.09	127.62
Volume	July '44	114.	50.

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager — *SCOTT McLEOD, Statistics* — *J. A. MAHONEY, Reports*

(Daily service also available—Write for details)

WATER SUPPLY

POSED WORK

Fla., Fort Walton—City, WW and sewage ...al sys., incl. collection and service ... force mains, primary treatment facili... Fla. 1-315-F. $216,000. FWA. CD ...ENR 1/6.

..., Hackneyville—At office J. E. Thet... city clk., rejected bids July 30, earth ... dam with concrete overflow spillway, ...rete outlet tower and un-watering struc... 124,000 cu. yd. earth fill, 650 cu. yd. ...con. Plans deposit $25, Engineering ...ice Corp., Decatur Club Bldg., Decatur, ...x CD 7/12.

..., M., Tularosa—C. Champion, mayor, ...r imprvs., incl. repairs to lining in cir... reservoir, replacement wood stave sup... line, chlorinator installation, distr. sys. ...fence around reservoir. $46,777. Ap... to FWA. Headman, Ferguson, Carollo ...Clausen, Home Builders Bldg., Phoenix, ...agrs.

..., Cleveland—Comrs. Cuyahoga Co., F. ...k, clk., Court House, 3,200 ft. 12 in. ...mains, Brecksville Rd. and 2,700 ft. in ...s Rd. in Brecksville. $30,000. F. L. ...druff, Public Sq. Bldg., Cleveland, co. ...ary engr.

..., Salem—City, F. K. Wilson, service dir., ...g. water reservoir. $50,000 or more.

Okla., Norman—City, R. M. McCool, mgr., ...man. WW imprvs., incl. 2 new wells com... with pump, equip., 10 in. line from new ...s to Naval Air Station collection lines, ...Okla. 34-187-N. $78,000. FWA. CD ...-ENR 7/20.

Pennsylvania — Bethlehem Municipal Water Auth., City Hall, 53 E. Broad St., ...hlehem, making plans reservoir and pipe... $3,000,000.

..., I., Fiskville—Pawtuxet Valley Water ...1672 Main St., West Warwick, making ...n steel water storage tank. Over ...000. Jenks & Ballou, 2600 Industrial ...t Bldg., Providence, engrs. CD 8/14— ...8/17.

Tex., Brownsville—City, exten., remodeling ...er plant, etc. Over $25,000.

Tex., Dallas—Waterworks Dpt., expanding ...ping and filtration plant, Bachman ...p. area. $35,000. Engineer, c/o Homer ...ter, City Hall.

Tex., Houston—Federal Works Agency; ...3 Wingate St., water sys. for 1,000 war ...kers homes. $110,000.

Tex., Weslaco—Town, WW imprvs., Tex. ...-N. $40,000. FWA. CD 6/15—ENR ...

Wash., Grandview—Bids soon, replacing ...mi. c.i. pipe. $60,000. G. D. Hall, Lar... Bldg., Yakima, engr.

Wash., Tacoma—City, City Hall, installing ...0 ft. 12 in. pipe to Naval Base Depot. ...000. W. A. Kunigk, City Hall, water supt.

Newfoundland, St. Johns—Municipality, re... ing various sized water pipelines, sup... ing water to higher levels. $50,000. ...nt Jack, City Hall, engr.

..., S. Truro—Municipality, water sys. ...ens., imprvs. incl. filtration plant. $125,... M. L. Gordon, Town Hall, engr.

..., Bolton—Town, developing water ...ply from wells for Fresh Air Camp. ...000. James Proctor & Redfern, Ltd., 36 ...onto St., Toronto, engrs.

..., Gravenhurst—Municipality, C. H. St. ...ns, clk., developing well, $20,000; new ...er supply sys., imprv. pumps, reservoir, ...tification and distr. sys. $40,000. James ...octor & Redfern Ltd., 36 Toronto St., ...onto, engrs.

..., Woodbridge—Town, E. W. Brown, ..., developing addnl. water supply and ...er sys. $90,000. James Proctor & Red... Ltd., 36 Toronto St., Toronto, engrs.

...ED ASKED

Bids Asked September 5

..., N. Y., New York—Comr. Water Supply, ...s & Electricity, Municipal Bldg., Zone 7, ...ding, laying watermains, appurtenances, ...rose Ave., E. 174 St. and Mt. Hope Pl., ...nx Boro. Plans deposit $1.

Bids Asked September 6

Pa., Phila.—Dpt. P. Wks., Bureau of ...ater, J. H. Neeson, dir., City Hall Annex, ...str. 288-WW1, watermains in Oregon and ...aware Aves., Contr. 280-WW1- (assess... ...), watermains in Champlost, Edmund, ...nceton and Regent Sts.

Symbols and Abbreviations Include:

†	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily
A-E-M	Architect-Engineer-Management type of contract

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply — Latin America
Sewers, Waste Disposal — Public Buildings
Bridges — Commercial Buildings
Streets & Roads — Industrial Buildings
Earthwork, Waterways — Unclassified

Stages Reported

PROPOSED: (except Streets & Roads): BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Bids Asked September 7

Ont., Toronto—City, Chairman Bd. Control, laying and jointing 12 in. watermain, appurtenances, 8 in. sewage force main, appurtenances to serve Sunnybrook Park military hospital. $50,000. F. J. Conboy, mayor. R. C. Harris, City Hall, engr.

Bids Asked September 8

Mass., Westfield—City, A. B. Long, mayor, City Hall, replacing present 4,000 lin. ft. 2 in. with 4 in. centrifugally spun pipe watermain, Old Holyoke Rd. sect. Over $15,000. CD 8/15—ENR 8/17.

Bids Asked September 13

Ill., Chicago—City, Dpt. P. Wks., City Hall, superstructures of filter and administration bldgs. of South District Filtration Plant on Lake Front, east of South Shore Dr. and north of E. 79 St. Plans deposit $50. O. E. Hewitt, comr. P. Wks.; adv. ENR 8/31. CD 8/21—ENR 8/24.

LOW BIDDERS

Ill., Libertyville—Village, City Hall, Aug. 15, 1 story, brick, water softening plant addn., from Cook Constr. Co., 228 N. La Salle St., Chicago, $15,000. CD 8/11.

Ill., West Frankfort—City, J. C. Randolph, mayor, Aug. 23, water sys., from H. E. Mitchell Contg. Co., 216 E. Madison St., Harrisburg, $142,182. CD 8/8.

Mass., Norwood—Town, F. W. Smith, genl. mgr., Aug. 23, furnishing, installing new high lift pump unit, Ellis Ave. Plant, from Turbine Equip. Co., 80 Federal St., Boston, $31,046.

Tex., Houston—City, c/o M. H. Westerman, secy., City Hall, Aug. 16, furnishing 2,400 volt metal clad switchgear, part of power control equip. for electric pumps in Southwest Pump. Sta., from Westinghouse Electric Co., Box 258. $21,477. CD 7/31—ENR 8/3.

Tex., Houston—City, M. H. Westerman, secy., City Hall, Aug. 23, furnishing meters, gages for S.W. Water pump. station operation from Maintenance Engrg. Co., 3611 Clinton St., Bids A and B, $5,820***from M. H. Dannenbaum Co., 2421 Wayside Dr., Bid C, $1,270***from Powers Specialty Co., Esperson Bldg., Bids D and G, $311***from Morey & Morey, 417 Praetorian Bldg., Bids E and F, $3,127***furnishing auto cone-type valves for controlling flow from well pumps and high service pumps in S.W. well field, from Anderson Valve Co., Scottdale, Pa., $20,000***chlorinators and ammoniators with necessary accessories, piping, from Wallace & Tiernan Co., 2615 Fannin St., $24,197. J. Dannenbaum, city engr. CD 8/16.

CONTRACTS AWARDED

Ala., Tuscaloosa—City, L. Davis, mayor, City Hall, concrete water storage tank, to Preload Corp., 420 Lexington Ave., New York, N. Y., $29,700. Bids 7/25. CD 7/5—ENR 7/13.

Ia., Burlington — Burlington Municipal Waterworks, water treatment plant, to A. C. Rehm, 212 S. Marion St., Oak Park, Ill., $112,500. Bids 8/2. D. D. Morgan, 107½ Jefferson St., engr. CD 2/15—ENR 2/17.

Neb., Omaha—Metropolitan Utilities Dist., 18 and Harney Sts., second mixing basin at water plant, to Parsons Constr. Co., 512 Grain Exch., $97,211. Bids 8/14. CD 8/3.

†S. D., Pierre—U. S. Eng., 1709 Jackson St., Omaha, Neb., water pipeline, at Air Base, to W. J. Parker Const. Co., Standard Oil Bldg., Omaha, Neb., $66,000.

Tex., Houston—City, 8 and 12 in. c.i. watermains, Mack, 67 and 69 Sts., to L. Lockhart, Chronicle Bldg., lead joints, $20,815; 8 in. watermains in Houston Harbor Dr., 2 in. mains, Corsicana Sta., to Bishop Brick Co., 2302 Jefferson St., $80,757. CD 8/3—ENR 8/10.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Colo., Denver — City, City and County Bldg., sanitary sewer line, 3,154 lin. ft. 8 and 10 in. vitr. clay pipe, kalktite joints, 14,450 lin. ft. 8 in. vit. pipe, cement joints, 64 manholes, $52,350. A. K. Vickery, city engr.

Mich., Detroit—Dpt. P. Wks., City Hall, making plans 3,400 ft. sewer arm in West Chicago Ave. from West Parkway to River Rouge; 2,100 ft. sanitary sewer from Rouge River to east side River Rouge interceptor, vitr. and concrete pipe, brick and concrete manholes and catchbasins. $115,000. Geo R. Thompson, city engr.

★**Mo., Wellston (St. Louis P. O.)**—Wellston Sewer Dist. of St. Louis Co., A. L. Bushman atty., 8003 Forsythe Blvd., Clayton, St. Louis, Zone 5, sanitary and storm sewerage sys., in 1,450 acre area bounded by north line of University Curtis Sewer District south line, western city limits of St. Louis and on west by Hanley Rd., and thence diagonally northwest to Carsonville, $1,638,000. Seeking FWA funds. $460,000 bond election in September or October. E. A. Fulton, 3 South Meramec Ave., Clayton, St. Louis, Zone 5, engr.

Okla., McAlester—W. Jones, mayor, sewer imprvs. $100,980. Applied to FWA. Collins Engrg. Co., 326 Arnote Bldg., engrs.

Ore., Sweet Home—City Clerk, City Hall, voted bonds sewage disposal plant. $75,000.

†Tex., Houston—Federal Works Agency, 7300 Wingate St., sanitary sewer lines for 1,000 war workers' homes area. $140,000.

†Tex., Pear Ridge—S. S. Lynch, 3636 40 St., Port Arthur, rejected bids Aug. 15, sanitary sewer facilities, Tex. 41-662-N. $25,000. FWA. May readvertise. Howe & Wise, 607 Stewart Bldg., Houston, Zone 2, engrs. CD 8/3—ENR 8/10.

Tex., San Antonio—Bexar Co. Water Control & Imprvt. Dist. 5, c/o C. W. Fenstermaker, voted $25,000 bonds, disposal plant. CD 7/26—ENR 8/3.

SEWERS, etc. (Proposed Work, Cont'd.)

Tex., San Antonio—Terrell Hills Imprvt. Dist., 717 Garrity Rd., voted bonds, sanitary sewers. $35,000.

Tex., Taylor—City, H. G. Richards, mgr., City Hall, voted $35,000 bonds, incinerator. CD 7/19—ENR 7/27.

†Va., Denbigh—Bd. Supervs. Warwick Co., Denbigh, incl. 23,380 ft. 6- to 12-in. sanitary sewer mains, 4,000 ft. 8 in. force main, pump. sta. and equip., 7,700 ft. 18- to 36-in. drainage mains, 41,160 ft. lined ditches, 9,730 ft. open cut outfall ditches, manholes, catch basins, head walls, appurtenant work, etc., Va. 44-398-N. $417,000. FWA.

★**†Va., Norfolk and Newport News**—Hampton Roads Sanitation Comn., Sect. 1, approx. 67,500 lin. ft. interceptor sewers, force mains, etc., Clyde St. and Chesapeake Blvd., etc.; Sect. 4, sewage tr. plant at Army Base, Norfolk, incl. comminutors, grit chambers, primary settling tanks, digesters, chlorination apparatus, etc.; Sect. 10, two sub-sections Western Branch to westward and Craddock area lying to south and east, incl. 14,000 ft. 14- to 20-in. pipe, etc., Va. 44-408-F. $2,829,850. FWA.

Wash., Prosser—City, City Hall, preliminary plans sewage disposal plant. $70,000, Seeking FWA aid. CD 5/25—ENR 6/1.

Wash., Sunnyside—City, City Hall, sewage disposal plant. $175,000. Seeking FWA funds. CD 9/27—ENR 9/30.

Man., Winnipeg—Provincial Govt., Winnipeg, 67,000 cu. yd. drain excav., culverts, fencing, St. Boniface. $35,000. Dpt. P. Wks., Winnipeg, engr.

Newfoundland, St. Johns — Municipality, J. J. Mahoney, clk., sewerage sys., northern suburbs. Grant Jack, City Hall, engr.

N. S., Truro—Municipality, exten. storm and sanitary sewers. $100,000. M. L. Gordon, Town Hall, engr.

Ont., Bowmanville—Town, A. J. Lyle, clk., sewage disposal plant. $75,000. James Proctor & Redfern, Ltd., 36 Toronto St., Toronto, engrs.

Ont., Caledonia—Town, A. G. Emerson, clk., sewerage sys., sewage disposal plant, water sys. $90,000. James Proctor & Redfern, Ltd., 36 Toronto St., Toronto, engrs. CD 12/7—ENR 12/9, under Sewers. CD 4/13, under Water Supply.

Ont., Humberstone—Town, sewerage sys. $45,000. C. R. Hagey Eng. Co., Fort Erie, engrs.

Ont., New Toronto—Town, F. J. Lonstaffe, clk., sewer along Birmingham St. and to lake by way of 2 St. $100,000. James, Proctor & Redfern, Ltd., Excelsior Life Bldg., Toronto, engrs.

Ont., Picton—Town, sewerage sys. and sewage disposal plant. $80,000. James Proctor & Redfern, Ltd., 36 Toronto St., Toronto, engrs.

Ont., Rainy River—Municipality, E. Jess, clk., sewage treatment plant. $40,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., Ridgetown—Municipality, H. McDonald, clk., sewage treatment plant. Over $45,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., Sioux Lookout—Town, J. A. Bailey, clk., sewerage sys., sewage disposal plant, WW sys. $100,000-$125,000. James Proctor & Redfern, Ltd., 36 Toronto St., Toronto, engrs. CD 5/12—ENR 5/18.

Ont., South Porcupine—Municipality, W. F. Strutt, clk., Porcupine, sewerage sys. $50,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Que., Waterloo—Municipality, 2 mi. 15 in. sewer. $50,000.

BIDS ASKED

Bids Asked In September

†Ia., Nevada — City, C. E. Lockingbill, mayor, sewage plant imprvs. $74,850. FWA. Stanley Eng. Co., Central State Bank Bldg., Muscatine, engr. CD 8/23—ENR 6/15.

Bids Asked September 5

Que., Rawdon—Gohier & Dorais, engrs., 10 St. James St. E., Montreal, sewerage sys., for Village, E. Pepin, mayor. $30,000. Plans deposit $5. CD 6/30—ENR 7/13.

N. Y., Hoosick Falls—Village Clk., Village Hall, storm sewers, street improvs. Plans deposit $25. Keis & Holroyd, 257 Rway., Troy, engrs.

Bids Asked September 8

O., Cleveland—City, F. Foy, purch. agt., City Hall, test borings for Kingsbury Relief Sewer.

Bids Asked September 19

Mich., Detroit—Dpt. P. Wks., City Hall, 2 addns. to garbage and rubbish incinerators 1 at Central and one at 24 St. plants, 175 tons cap. each for 24 hr. operation, with accessory equip., addnl. chimney, bldg. alterations, addns., etc. G. R. Thompson, City Hall, city engr.

Bids Asked September 27

†Va., Norfolk—City, C. B. Borland, mgr., at office Director P. Wks., City Hall Bldg., 3 story, incinerator bldg., 4 furnace incinerator plant and equipment. Va. 44-355. FWA. Plans deposit $25. Rudolph, Cooke & Van Leeuwen, Inc., 355 Monticello Arcade Bldg., archts.; adv. ENR Aug. 31.

LOW BIDDERS

†Ala., Mobile—City, R. C. Herndon, mayor, Aug. 15, 2 sewage pump. stations and force main, Ala. 1-185-N, from Sockwell Co., 156 Rogers St. S.W., Atlanta, Ga., $67,973. FWA. CD 7/26—ENR 8/3.

Tex., Houston—City, c/o M. H. Westerman, secy., City Hall, Aug. 23, storm sewers in Lawrence St. and N. Shepherd Dr. from Bishop Brick Co., 2302 Jefferson St., $198,998. CD 8/18—ENR 8/24.

CONTRACTS AWARDED

†Ill., Herrin—City, C. W. Campbell, clk., 52,700 8- to 24-in. sanitary sewers, laterals, interceptors, outfalls and manholes. Ill. 11-311 N, to Rees Constr. Co., Quincy, $120,170. FWA. CD 7/27—ENR 8/3.

†Mont., Walkerville—City, Margaret Cunningham, clk., sewerage sys., to Kiely & Sons, Mayer Bldg., Butte, $17,885. FWA. Bids 8/7. Jack Healey & J. W. Johns, Butte, engrs. CD 5/9—ENR 5/11.

BRIDGES

PROPOSED WORK

Colo., Sand Creek Junction (mail Derby)—Union Pacific R. R., B. H. Prater, ch. engr., 1416 Dodge St., Omaha, Neb., bridge. $137,825.

Ontario—Provincial Govt., Toronto, replacing truss span, etc., Vermillion River Bridge, Sudbury, $30,000. Dpt. Hys., Toronto, engrs.

Ont., Wallaceburg—Municipality, bridge over Sydnenham River. $35,000. W. Colby, Town Hall, engr. CD 4/6—ENR 4/13.

Que., Quebec City—Municipality, viaduct on Palace Hill. $200,000. Ed. Hamel, City Hall, engr.

BIDS ASKED.

Bids Asked September 5

D. C., Wash.—District Comrs., District Bldg., 600 sq. yd. rein.-con. pavement or alternate on roadway of overpass on line of Alabama Ave. S.E. over Suitland Parkway.

Iowa—State Hy. Comn., Ames, 26x120 ft. continuous I-Beam bridge and 0.215 mi. grading, paving on Iowa 10 approx. 6.5 mi. east of Waverly between Sects. 1 and 12, Jefferson Twp., FN-88-B, Bremer Co.; 8 culvert repair jobs on U. S. 34 east and west of Corning, on Iowa 48 north of Corning and on Iowa 186, M-4293, Adams Co.; 2 culvert repair jobs on U. S. 67, 3 mi. north of Sabula, M-6204, Jackson Co. F. R. White, ch. engr.

Mich., Grand Rapids—Bd. Kent Co. Road Comn., 1500 Scribner Ave. N.W., Zone 4, Sparta Bridge 21, having 14 ft. rein.-con. slab deck spans, Sparta Twp. O. Hess, Grand Rapids, co. engr.

Bids Asked September 13

California—State Div. Hys., Sacramento, reconstructing portion bridge across Sacramento River, at Rio Vista, Sacramento Co.; Bids 8/16 rejected, CD 8/22—ENR 8/24, under LB; repairing 4 timber trestle bridges between 5 mi. south of Stockton and 0.6 mi. north of Lodi, San Joaquin Co. G. T. McCoy, state hy. engr.

LOW BIDDERS

Illinois—State Div. Hys., Springfield, Aug. 25, 4 bridges, Sect. 14 R-B, McLean Co., from LaCrosse Dredging Corp., 310 S. Michigan Ave., Chicago, $107,714, est. over $25,000; bridge, Sect. 15 R-B, S.M.-F.A. Proj. 25 K(1), McLean Co., from Fairview Const. Co., Citizens Bldg., Decatur, $29,789, est. over $25,000. CD 8/15—ENR 8/17.

CONTRACTS AWARDED

New Jersey—Monmouth Co., Courthouse, Freehold, concrete, steel, timber bridge treated salt deck, on 55 rein.-con. piles, over Branchport Creek, between Oceanport and Long Branch, to A. P. Thompson, 87 Maple Ave., Red Bank, $68,426. O. Seaman, Courthouse, Freehold, engr.

STREETS AND ROADS

PROPOSED WORK

Puerto Rico—Dpt. Interior, Sergio Cuevas, comr., San Juan, approved applications for work project authorization on 2.38 kms. Carite Rd., Guayama, $32,000; imprv. roads and constructing retaining wall, near Palo Seco Ward, Toa Baja, $62,724; 2.032 kms. Palmarejo Road, Coamo, $34,000; 0.7 kms. road and asphalting 2.0 kms. Higuilar Rd., Naranjito, $25,000; completion Mabi secondary Rd., Rio Grande, $20,000; constructing 1.4 kms. Playa Ward Rd., Salinas, $18,400.

BIDS ASKED.

Bids Asked September 5

Ill., Wheaton—E. L. Gates, co. supt. hys., Du Page Co., County Bldg., maintenance, 4,800 tons 18 to 22 ft. bit. cover coat C-6 on 8.9965 mi. roads. Over $25,000.

Iowa—State Hy. Com., Ames, maintenance, resurfacing 4.1 mi. Iowa 2 from end of pavement to Ringgold Co. line, M-4812 Decatur Co.; 3.8 mi. Iowa 133, from M Pleasant to Oakland Mills, M-5268, Henry Co.; 9.1 mi. Iowa 16 from N.W. corner Sect. 18-69-5 to Denmark, 6 mi. Iowa 16 from West Point to U.S. 218, M-5269, Le Co.; 9.8 mi. U.S. 65 from Wayne Co., to U.S. 34, 0.9 mi. Iowa 306 from Derby to U.S. 65, M-5275, Lucas Co.; 1.4 mi. Iowa 259 from Tingley to U.S. 169, 2.1 mi. Iowa 260 from Shannon City to U. S. 169, M-4124 Ringgold Co.; 18.6 mi. Iowa 25 from U.S. 34 to Iowa 2, 3. mi. Iowa 265 from Ke to U.S. 34, M-4315, Union Co.; roadside erosion control on Iowa 22 out of Muscatine west, FN-820-A(1), Muscatine Co. F. R. White, ch. engr.

Mass., Boston—City, Dpt. P. Wks., City Hall, bituminous concrete paving Alcott, Aldie, Bradbury, Fern, Hand and Fordham Sts. Plans deposit $2.

Mich., Grosse Pointe Woods—Village at office P. Allard, clk., 3,000 sq. ft. sidewalks.

Bids Asked September 6

Mass., Boston—Dpt. P. Wks., City Hall, bit. concrete paving March Ave., Rustic Road, Amherst, Cotton, Houston, Linnet, Lorrain, Richmond, and Wren Sts., $46,000. Plans deposit $2.

Minn., Winona—Winona Co., R. Schoonover, aud., gravel surfacing, furnishing 5,000 cu. yd. crushed rock surface material and placing same on roads in vicinity of Saratoga Twp. or in stockpiles; furnishing 10,000 cu. yd. crushed rock surface material and placing some on roads in vicinity of Elba and Whitewater Twps. or in stockpiles, $25,000. E. P. Efferts, Co. hy. engr.

N. J., Winslow—Town, Municipal Bldg., bituminous surface treating 159,514 sq. yd. Flittertown-Winslow-Egg Harbor, Spring Rds., Sect. 2 of Florence Rd. $35,000. J. C. Remington, 509 Cooper St., Camden, engr.

Bids Asked September 7

Mass., Boston—City, Dpt. P. Wks., City Hall, sheet asphalt paving Massachusetts Ave., Ward 4. $25,000. Plans deposit $2.

Bids Asked September 8

Kentucky—Dpt. Hys., Frankfort, 1.3 mi. truck trail construction, Saxton's Creek-Smith's Saw Mill Rd., DA-RM 68, SP 26-145, Clay Co.; 1.1 mi. Wayland-Beaver Gap Rd., DA-RM 66, SP 60-38; grading, draining, creek gravel construction 1.701 mi. same road, DA-RM 66, SP 60-38, both Knott Co.

Minnesota—State Hy. Dpt., St. Paul, grading, crushed rock base and production 8,000 tons mineral aggregate on 6.3 mi. hy. between LeRoy and Junction Trunk Hy. 42, S.P. 5005-20 (Trunk Hy. 56-81). Plans deposit $3.10; 1.8 mi. between 2 and 4 mi. east of Cannon Falls, S.P. 2503-04 (TH 19-100). Plans deposit $1.10. Est. $25,000 or more each. O. L. Kipp, ch. engr.

Bids Asked September 12

Ill., Chicago—O. E. Hewitt, comr. P. Wks., City Hall, Pulaski Road Viaduct, roadway construction, removing defective parts of existing pavements, repairing main transverse expansion joints, etc., for City.

Bids Asked September 13

California—State Div. Hys., Sacramento, imported borrow and surfacing material, grading, blacketing, bituminous surface treatment 5.4 mi., and 2 rein.-con. bridges on treated timber pile bents between San Bernardino Co. line and 15 mi. north of Inyokern, Kern Co. G. T. McCoy, state hy. engr.

Kansas—State Hy. Dpt., Alma, resurfacing material 4.904 mi. Pr. 1727, Brown Co.; 2.628 mi. P. 1995 and 10.598 mi. P. 1728 AB, 15.4 mi. P. 1729, foregoing in Doniphan Co.; 8.972 mi. P. 1730, Jackson Co.; 8.153 mi. P. 1731 AB, Jefferson Co.; 11.854 mi. P. 1732 AB, 8.92 mi. P. 1733 AB, both Leavenworth Co.; 5.654 mi. P. 1734, Lyon Co.; 3.79 mi. P. 1735, 11.342 mi. P. 1736, 10.428 mi. P. 1737, 7.572 mi. P. 1741, 8.801 mi. P. 1738, 7.889 mi. P. 1739, 14.527 mi. P. 1740 A, foregoing in Marshall Co.; 6 mi. P. 1742, 10.69 mi. P. 1743, 4.53 mi. P. 1744, foregoing in Nemaha Co.; 5.939 mi. P. 1745, 0.171 mi. P. K 1158, 11.751 mi. P. 1746, foregoing in Osage Co.; 12.13 mi. P.1747, 21.32 mi. P. 1748, 13.539 mi. P. 1749, 11.603 mi. P. 1750, foregoing in Pottawatomie Co.; 9.894 mi. P. 1751, Riley Co.; 4.27 mi. P.1704, Shawnee Co.; 10.983 mi. P. 1705, 27.358 mi. P. 1752 AB, 16.255 mi. P. 1753, 5.21 mi. P. 1754, 10.09 mi. P. 1755, 26.933 mi. P 1756 AB, foregoing in Wabaunsee Co. R. C. Keeling, Topeka, engr.

...TREETS, etc. (Bids Asked, Cont'd.)

Bids Asked October 30

Mich., Kalkaska — Kalkaska Co. Road ..., Kalkaska, production 15,000 yd. ...intenance gravel, grade 22 A, to be pro... from 3 county-controlled pits and ... at or near site of production to ...t State Hy. Spec.

Bids Asked

Iowa—State Hy. Comn., Ames, received ... bids Aug. 22, imprv. Proj. FN-55-C, ... 0.391 mi. Proj. P-643; 0.423 mi. ...tt Co., 0.391 mi. Proj. P-647; 33.9 mi. ... P-671, both Webster Co.; 13.2 mi. ...-611, Guthrie Co.; M-1202, Webster Co. ...jected bids Aug. 22, imprv. Proj. M-1301, ...na Co. CD 8/16.

LOW BIDDERS

California—State Div. Hys., Sacramento, ...rading, crusher run base and armor coat ...rfacing 1 mi. E. St. between 16 and 32nd ...ts, near McClellan Field, Sacramento Co., ... A. Teichert & Son, Inc., P. O. Box ...1111, Sacramento, $427,079. G. T. McCoy, ...ate hy. engr.

†Calif., Fontana—U. S. Eng., 751 S. Fig... ...ve., Los Angeles, Aug. 21, roads, ...rking area, at 155 M.M. shell plant ...(Kaiser), from M. S. Mecham Constr. Co., ...210 W. 46 St., Los Angeles, $26,909. CD 6/14.

Delaware—State Hy. Dept., Dover, Aug. 23, ...ralening, reconstructing 5.538 mi. Odessa to ... Georges, Contr. 768, New Castle Co., ...m J. Julian, duPont Rd., Bismere, Wil...ington, $148,553.

Georgia—State Hy. Dept., R. G. Clay, dir., ...lanta, Aug. 16, imprv. 5.992 mi., Madison ...d Jackson Counties, from E. H. Hines, ...reenwood, S. C., $77,040. State Hy. Dept., ...lanta, rejected bids Aug. 16, imprv. 5.096 ... Warren Co.; 3.476 mi. Chatham Co.; ...eferred bids to have been opened Aug. 16 for ...mprv. 5.2 mi. hy. Towns Co., 11.7 mi. Glynn ... CD 8/11.

Illinois—State Div. Hys., Springfield, ...Aug. 16, imprv. 7.73 mi. hy. McLean Co., ...m Arcole Midwest Corp., 221 N. La Salle ..., Chicago, $588,222, est. over $200,000*** ...4.235 mi. Stephenson Co., from A. C. ...ohnston & Son, 15 S Ave., Joliet, $87,537, ...t. over $25,000*** 5.34 mi. McLean Co., ...m O'Connor Const. Co., Inc., Reisch ...dg., Springfield, $300,620, est. over $200,-... CD 8/11—ENR 8/17.

Indiana—State Hy. Comn., S. C. Hadden, ...chn., Indianapolis, Aug. 23, from Calu... ...et Paving Co., 102 S. Noble St., Indianapo...; imprv. 8.993 mi. Contr. 3537, $283,376, ...et. $317,665; 3.637 mi. Contr. 3538, $210,-...et. est. $227,559, both Henry Co.; 3.821 mi. ...ney and Wayne Counties, $274,372, est. ...296,172. CD 8/11—ENR 8/17.

Mass., Boston—P. Wks. Dept., City Hall, ...g. 31, imprv. E. 2nd St. and W. 5 Sts., ...om Hancock Constr. Co., 5 Hampstead ...d., Jamaica Plain, $25,783. CD 8/18.

Michigan—State Hy. Dept., Lansing, Aug. ...1, imprv. 2.7 mi. Ottawa Co., from Vinton ...Constr. Co., Coldwater, $238,822; U. S. 12, ...-139 and M-40, Berrien Co., M-60, M-40, ...& 112, M-205 and M-63, Cass Co., U. S. ...1, M-40, Van Buren Co., from W. H. Knapp, ...Monroe, $36,943; U. S. 12 and M-40, Van ...uren Co., from John Yerington, Benton ...Harbor, $80,480. CD 8/8 and 8/2.

Nebraska—State Dept. Roads & Irrigation, ...Lincoln, Aug. 24, repairing pavement in ...ntrols 13101, 12301, 13301, 12504, Union...ustburn, Cass, Otoe and Nemaha Counties, ...om National Const. Co., 1225 S. 20 St., ...Omaha, $38,325. CD 8/14—ENR 8/7.

North Carolina—State Hy. & P. Wks. ...ons., Raleigh, Aug. 22, imprv. 6.49 mi. ...tdall Co., from R. B. Tylor Co., 1446 ...Levering St., Louisville, Ky., $32,712. CD ...8.

North Carolina—State Hy. & P. Wks. ...ons., Raleigh, Aug. 25, imprv. 9.97 mi. ...raven Co., from West Constr. Co. of N.C., ...Inc., Kinston, $164,773. Est. $150,000-$180,-... CD 8/18.

Ohio—State Hy. Dept., Columbus, Aug. ...31, imprv. 1.311 mi. Ashtabula Co., from ...Todd Constr. Co., National Bank Bldg., ...Ashtabula, $33,163, est. $33,370***1.305 mi. ...Hamilton Co. from Churchill Constr. Co., ...151 State St., Lima, $87,076, est. $87,100 ...***1.372 mi. Cuyahoga Co., from Horvitz ...Co., 811 Midland Bldg., Cleveland, Zone 15, ...$36,444, est. $152,600***1.503 mi. Hamilton ...Co., from J. R. Jurgeson, Round Bottom Rd. ...and N. and W. R. R., Newtown, $46,725, ...est. $46,100***1.383 mi. Jackson Co., from ...Irvine Constr. Corp., 321 Prospect St., ...Portsmouth, $30,453, est. $30,500***1.478 mi. ...Muskingum Co., from Shelly & Sands, Inc., ...Zanesville, $23,543, est. $33,600***3.632 mi. ...Geauga Co., from Maumee Asphalt Paving ...Co., Second Natl. Bank Bldg., Toledo, $44,-... est. $44,300***1.382 mi. Summit Co., ...from Thorpe Constr. Co., 109 N. Union St., ...Akron, $44,400, est. $55,600***3.296 mi. Van ...Wert Co., from H. E. Johnson Co., 818 Ter...minal Bldg., Toledo, $66,964, est. $66,960*** ...3.144 mi. Wood and Ottawa Counties, from ...E. J. Langenderfer, 4490 Bancroft St., ...Toledo, $90,548. Received no bids Aug. 22, ...imprv. 1.674 mi. Fulton Co., 1.391 mi. Col...umbiana Co., 2.144 mi. Ashland and Wayne ...Counties. CD 8/4—ENR 8/10.

O., Cleveland—S. F. David, dir. P. Serv., City Hall, Aug. 18, roadway surface treating 8 districts, from Horwitz Co., Midland Bldg., $117,000. Est. $110,000. CD 8/10.

†**Oregon**—Pub. Roads Admin., New P. O. Bldg., Portland, Aug. 22, grading, surfacing Deadwood timber access road, Jackson Co., from Tru-Mix Concrete Co., Medford $99,-853.

Pennsylvania—State Dpt. Hys., Harrisburg, Aug. 22, imprv. 1.19 mi. Beaver Co., from McCrady Const. Co., 239 4 Ave., Pittsburgh, $67,173. CD 8/11—ENR 8/17.

CONTRACTS AWARDED

Minnesota—State Hy. Dpt., St. Paul, imprv. 30 mi. S.P. 6910-28 (Trunk Hy. 53-11) and S.P. 6917-13 (TH 53-11), between Pike Lake and County Aid Rd. 49, etc., to Fielding & Shepley, Inc., 1258 Bohn St., St. Paul, $181,898. Bids 8/4. CD 7/19—ENR 7/27.

Minnesota—State Hy. Dpt., St. Paul, gravel base repairs 15.3 mi. S.P. 0603-04, (Trunk Hy. 12-26) and 7.2 mi. S.P. 5602-03 (Trunk Hy. 3-36), to Megarry Bros., St. Cloud, $80,026 and $54,117 respectively; 4 mi. S.P. 7608-06 (Trunk Hy. 29-33), to G. D. Alexander, 100 Third Ave. S. Minneapolis, $24,535. Grand total $158,678. Bids 8/11. CD 7/26—ENR 8/3.

Mississippi — E. Kenna, dir. State Hy. Comn., Jackson, imprv. hyy. Yazoo Co., to E. W. Hable, Corsicana, Tex., $56,132, est. $40,000; 11.012 mi. Grenada Co., to Lancaster & Harris, Grenada and Duck Hill, $60,726, est. $60,000. Bids 8/21, awarded 8/23.

Mo., St. Louis—City, c/o A. C. Meyers, dir. Streets & Sewers, City Hall, 12 and Market Sts., Zone 3, asphalt resurfacing 18 blocks cobblestone streets, incl. Florida, Mullanphy, Dickson Sts. and Cass Ave. from Bway. east to wharf and Second St. from Cass Ave. to O'Fallon St. Own forces, $25,-000 or more.

Neb., Gordon—Street paving, to Peter Kiewit Sons Co., Omaha Natl. Bank Bldg., Omaha, $26,634. Bids 8/11. CD 7/26—ENR 8/3.

New Mexico—At office F. G. Healy, engr. State Hy. Dpt., Santa Fe, grading, surfacing, oiling 37.9 mi. S. P. 42, 72, 152-B and C, U. S. Hy. 60, Socorro and Catron Counties, to Armstrong & Armstrong, 107 E. 3 St., Roswell, $37,958. Bids 8/25.

Oklahoma—State Hy. Dpt., Oklahoma City, imprv. 0.063 mi. hy., new concrete bridge, U.S. 75, Washington Co., to Stebbins Constr. Co., Bartlesville, $26,816, est. $28,507; 3.5 mi. Bryan Co., to Moran & Buckner Co., 507 Surety Bldg., Muskogee, $119,427, est. $142,-046. Bids 8/22. CD 8/15.

†**Va., Arlington**—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash. 25, D. C., paving Loop Rd., Arlington Farms, to Potts & Callahan Contr. Co., Inc., 500 W. 29 St., Baltimore, Md., $29,960. FWA.

Washington — State Hy. Dpt., B. Bantz, state hy. engr., Olympia, imprv. access roads between Seattle and Renton Boeing Aircraft plants, King Co., to Northwest Constr. Co., 3950 6 Ave. N.W., Seattle, $181,-818. Bids 8/1. CD 7/19.

Ont., Leaside—Town, paving streets, to Rayner Constr. Ltd., 29 Commercial St., about $120,000. Bids 8/14. CD 8/10.

EARTHWORK, WATERWAYS

PROPOSED WORK

†**Arkansas**—U. S. Eng., U. S. Post Office & Court House, Vicksburg, Miss., imprv. Cypress Creek drainage sys. Over $50,000.

California—State Div. Water Resources, Los Angeles, received no bids Aug. 16, dredging, placing dredged material on Santa Monica and Venice Beaches, Los Angeles Co. $300,000. CD 8/2.

†**La., Abbeville**—U. S. Eng., foot of Prytania St., New Orleans, postponed bids to have been opened Aug. 18, excavating approx. 2,250,000 cu.yd. earthwork, etc. for channel excav. and disposal excavated material between Mile 32.4 and 39.5 on 9x100 ft. Vermilion River Project on Vermilion River, 2½ mi. above here, Solic. No. 16-047-45-3. CD 7/27—ENR 8/3, under New Orleans.

Tex., Brownsville—Cameron Co. Irrigation Dist., C. L. Hunter, mgr., ground water storage reservoir. $60,000.

Tex., Pt. Lavaca—Victoria-Calhoun Soil Conservation Dist., Pt. Lavaca, revetments, ditching, grading, terracing, etc., for soil conservation project. Over $60,000.

BIDS ASKED.

Bids Asked In September

Conn., Bridgeport—City, H. L. Rowland, city engr., dredging channel 50 ft. wide, 12 ft. below mean low water, in Powerhouse Creek. Over $15,000.

Bids Asked September 5

Ont., Embrun—J. A. Lacombe, clk. Russel Twp., Municipal Hall, Embrun, drainage. $120,000.

Bids Asked September 7

†**Ark., Pine Bluff**—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, Miss., construct, place approx. 400 lin. ft. bank revetment and stock-piling 10,000 tons stone near existing revetment located on right (south) bank Arkansas River.

†**Tex., Port Arthur**—U. S. Eng., 25 St. and Avenue F, Galveston, dredging 1,800,000 cu. yd. material from Sabine-Neches Channel. $100,000.

Bids Asked September 8

†**California**—U. S. Eng., 1208 8 St., Sacramento, Zone 8, levee enlargement from Moulton Weir to Princeton Butte City Rd., Spec. 942, Colusa and Glenn Counties.

O., Cleveland—City, F. Foy, purch. agt., City Hall, bulkhead and jetties along Lake Erie at W. 103 St. and Edgewater Beach. $80,000. J. C. Wenrick, 518 City Hall, city engr.

Bids Asked September 9

†**N. M., Tucumcari**—Bureau Reclamation, S. O. Harper, ch. engr., Tucumcari, preparation concrete aggregates, Tucumcari Project, near here, Spec. No. 1759-D.

Bids Asked September 11

N. J., Elizabeth—Committee on Bridges, Drainage and Flood Control of Bd. of Freeholders Union Co., Court House, reconstructing approx. 70 lin. ft. bulkheads at S. Front and S. 1st St. bridges over Elizabeth River. J. O. Brokaw, chn.; adv. ENR 8/31.

Bids Asked September 13

Tex., Marlin—Town, levee fills at water supply lake, $35,000. H. R. F. Holland, Frost Bank Bldg., San Antonio, engr.

Bids Asked September 18

†**Oklahoma and Oregon**—At Office Bureau Reclamation, S. O. Harper, ch. engr., Denver, Colo., furnishing, del. f.o.b. cars at shipping point or f.o.b. cars at railroad destinations, two 8 x 7 ft. radial gates with manually operated radial-gate hoists for west canal turnout, Main Canal, Altus Project, Okla., one 6 x 15 ft. radial gate with manually operated radial-gate hoist for installation in canal outlets, Altus Dam, Altus Project, Okla.; one 16 ft. x 8 ft. 3 in. radial gate with manually operated radial-gate hoist for installation at Crooked River Crossing, North Unite Main Canal, Descutes Project, Ore., Spec. 1762-D.

Bids Asked September 19

†**Washington**—At office Bureau Reclamation, S. O. Harper, ch. engr., Denver, Colo., furnishing, del. f.o.b. cars at shipping point or f.o.b. cars at Odair, one miter gate-operating mechanism consisting 2 operating units for installation on drydock at Grand Coulee Dam, Columbia Basin Project, Spec. 1764-D.

Bids Asked September 20

†**Washington**—At office Bureau Reclamation, S. O. Harper, ch. engr., Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars at Odair, caisson hoists, barge hoists, auxiliary hoists for maintenance of spillway bucket, Grand Coulee Dam, Columbia Basin Project, Spec. 1763-D.

Bids Asked October 14

†**Alaska, Seward**—U. S. Eng., 800 3 Ave., Seattle, 4, Wash., repairing Lowell Creek flood-control diversion tunnel. Negotiation 1019.

Bids Asked in Fall

Ill., Ridgway—Cyprus Special Drainage Dist., Ridgway, cleaning 13 mi. Cyprus Drainage Ditch, involving 190,000 cu.yd. earthwork. $65,000. R. S. Huffman, Logan Hotel, Murphysboro, engr.

LOW BIDDERS

†**Ark., Modoc**—U. S. Eng., West Memphis, Ark., restoration wash repairs and topping 28,000 cu.yd. R-335R, from Ben M. Hogan & Co., 115 N. Spring St., Little Rock, at 56c. cu.yd.

Ark., Old Town—U. S. Eng., West Memphis, Ark., Aug. 18, 45,000 cu.yd. levee work and topping, R-336.4R, from Ben M. Hogan & Co., 115 N. Spring St., Little Rock, 56c. cu. yd. CD 8/10.

†**Colo., Granby**—Bureau of Reclamation, Custom House, Denver, earthwork, bridge, Grand Lake-Shadow Mountain Lake, Colo. Big Thompson Proj., Spec. 1758-D, from Larson Constr. Co., 3001 Wilton St., Denver, $23,001.

†**Mississippi**—U. S. Eng., P. O. Box 87, Memphis, Tenn., Aug. 18, constructing 15,000 cu.yd. levee work and topping construction, vicinity Lake Charles, Coahoma Co., from R. P. Greene Const. Co., Walnut, Miss. "all or none" incl. R-326.4R. CD 8/10.

†**Mo., New Madrid**—U. S. Eng., P. O. Box 87, Memphis, Tenn., Aug. 24, 294,000 cu. yd. levee work, 202,000 cu. yd. levee restoration and new loop levees, Stations 82/7-84/66, Levee Item R-46.5, and 94,000 cu. yd. levee restoration and new loop levees, levee stations 84/66-86/33, Item R-79.5, from Gilliox Constr. Co., Monett, Mo., 34 per cu. yd. CD 8/14.

N. Y., New York—Comr. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., Zone 21, reconstructing sea wall and construct-

EARTHWORK, etc. (Low Bidders, Cont'd.)

ing rip rap blanket and incidental work along south and east shore, Randall's Island, Contr., M-104-144, from Slattery Constr. Co., 72-02 51 Rd., Woodside, $54,068. CD 8/15—ENR 8/17.

†R. I., Providence—U. S. Eng., 819 Industrial Trust Bldg., Aug. 25, maintenance dredging in Providence River and Harbor, No. 46-3, from J. S. Packard Dredging Co., 1 Court St., Boston, Mass., $130,720. CD 8/17.

†Tex., Anahuac—U. S. Eng., 25 St. and Avenue F, Galveston, Aug. 18, dredging 204,000 cu.yd. Anahuac Channel, from Jahncke Service, Inc., 814 Howard Ave., New Orleans, La., 9.19c. per cu. yd. total $18,500. CD 8/14.

CONTRACTS AWARDED

★†Calif., Hunters Point—Yards & Docks, Navy Dpt., 15 St. and Constitution Ave. N.W., Wash. 25, D. C., dredging, filling Naval Drydocks, Spec. 14723, NOY 10310, to Ben. C. Gerwick, and Morrison-Knudsen Co., & Ford J. Twaits Co., 111 Sutter St., San Francisco, $1,600,000. CD 8/3, under LB.

Ia., Carroll—Bd. Supervs. Carroll Co., excavating ditches for drainage, to Frank Zimmer, Carroll, $29,955. Bids 8/14. CD 7/31—ENR 8/3.

Ia., Hampton—Franklin Co., drainage in D.D. 6, to Booth & Olson, Inc., 623 Insurance Exch. Bldg., Sioux City, $16,680. Bids 8/18. C. P. Rudisill, co. engr.

Ia., Muscatine—River levee, to Omaha Dredge & Dock Co., 808 Douglas St., Omaha, Neb., $67,005. Bids 7/25. CD 7/11—ENR 7/13.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, over 130,000 cu.yd. earth, etc. in 3 levee districts, Sel. No. 16-9417-45-5, Plaquemines Parish, to W. J. Aldrich & Co., Kalwrath University Gardens, Baton Rouge, $1.67c. per cu.yd. Bids 8/15. CD 8/10.

†Neb., Dale—U. S. Eng., 1709 Jackson St., Omaha, repairing, imprv. dikes and revetment on Missouri River, to Bilhorn, Bower & Peters, Inc., 3015 Forsyth St., St. Louis, Mo. $42,000.

★†New Mexico—Bureau Reclamation, Denver, Colo., earthwork and structures Tucumcari project, Schedules 1, 2 and 3, to J. A. Terteling & Sons, Inc., Robert Noble Bldg., Boise, Idaho, $563,441; Schedules 4, 5, 6, 7 and 8, to Clyde W. Wood, Inc., 816 W. 5 St., Los Angeles, Calif., $686,248. Bids 7/23, awarded 8/24. CD 8/8—ENR 8/10, under LB.

S. D., Aberdeen—Brown Co., repairing concrete dam, to Thompson & Herried, Summit, $21,021. Bids 8/7, Julian Staven, Montana-Dakota Bldg., Rapid City, engr.

†Wash., Seattle—U. S. Eng., 300 3 Ave., Zone 4, dredging Duwamish waterway, to Puget Sound Bridge & Dredging Co., 2929 16 Ave. S.W., $68,975.

Wash., Vancouver—Kaiser Co., Vancouver, dredging Columbia River alongside outfitting dock, to General Constr. Co., 3440 Iowa St., Seattle, $87,000.

LATIN AMERICA

Mexico and Guerrero—Federal Communications, Maximino Avila Camacho, pres., Presidential Palace, Mexico City, takes bids early winter transmission lines between Coroneo in state of Mexico and Temixco State of Guerrero. $100,000.

Mexico—Federal Dept. Educ., Jaime Torres Boddet, secy. Educ., Presidential Palace, Mexico City, in cooperation with States of Morelos, Jalisco and Sinaloa, plans schools in above states. $1,000,000.

Mexico—State of Tabasco, Villa Hermosa, state-wide construction schools, by own forces. $650,000. Pedro Ramirez Vasquez, Villa Hermosa, archt.

Mexico—State of Vera Cruz, Jalapa in cooperation with Federal Dpt. P. Wks., Dirc. Maximino Avila Camacho, takes bids within 90 days addns. to University of Vera Cruz, incl. library, hospital. $355,000.

Mexico—State of Vera Cruz, Governor Jorge Cerdan, Jalapa, in cooperation with Federal Electrification Comn., takes bids in September, state-wide construction electric plants. $750,000.

Mexico, Azcapotzalco—Federal District, Ldc. Javier Rojo Gomez, Mexico City, will take bids within 90 days for construction of school center, playgrounds, gymnasium, etc. $155,000.

Mexico, Colima—Carlos Alcaraz Ahumada, Colima, takes bids in October, constructing bullring, concrete and steel stands, etc. $165,000.

Mexico, Cuidad Guzman—Municipal Government, Palacio Municipal, Cuidad Guzman, plans improved tap water service. $350,000.

Mexico, Dolores—State of Hidalgo, Pachuca, takes bids within 30 days, dam for irrigation in El Gallinero sector. $125,000.

Mexico, Hermosillo—State of Sonora, Governor Abelardo L. Rodriques, Hermosillo, plans irrigation project, 3 dams, near here. $1,000,000. Work to start as soon as Federal Government grants approval.

Mexico, Hermisillo—State of Sonora, Governor Abelardo L. Rodruques, Hermisillo, takes bids late in 1944, cotton factory. $5,000,000.

Mexico, Huastaca—City, Fidel Ayala Jiminez, mayor, will construct and repair streets and highways by own forces. $110,000.

Mexico, Manzanillo—Dpt. P. Wks., Director Maximino Avila Camacho, Presidential Palace, Mexico City, naval base on Pacific coast.

Mexico, Mexico City—Cia. Fabrica de Productos Quimicos Boyle, S. A., Puebla, 280, Mexico, D. F., plans chemical factory. $200,000.

Mexico, Mexico City—Novedades Metalicas, Andalucia, 223, Col. Alamos, Mexico, D. F., plans metallic curtains factory. $150,000.

Mexico, Monterrey—Vidrios y Cristales, S. A., Salvador Gonzales, Jr., pres., Edificio Isaac Garza, 701, Monterrey, plans bottle factory. $300,000.

Mexico, Monterrey—State of Nuevo Leon, Arturo B. de La Garza, Governor, Monterrey, plans dam for irrigation $350,000. Awaiting Federal Government approval.

Mexico, Ocotlan—City, Lic. Lauro Villasenor takes bids in September, school for agriculture. $200,000.

Mexico, Puebla—State, Governor Gonzalo Bautista, Puebla, takes bids in October for hospital. $400,000. Dpt. Federal Health, Mexico City, Dr. Gustavo Baz, secy. will finance.

Mexico, San Luis Potosi—City, Gomez, del Campo, mayor, soon takes bids school. $200,000.

Mexico, Torreon—State of Coahuila, Governor Benecio Lopez Padilla, Torreon, wing addn. and repairing Federal Palace, to Antonio Guitierrez Sola, Torreon, $300,000.

Mexico, Villatempoal—City of Villatempoal, takes bids within 90 days school. $150,000. State will aid in financing.

PUBLIC BUILDINGS

PROPOSED WORK

†Ariz., Phoenix—School Dist. 6, Maricopa Co., school bldg., Ariz. 3-171-N. $12,500. FWA.

†Calif., Berkeley — Cutter Laboratories, Inc., Berkeley, addnl. plant bldgs., $135,000. Defense Plant Corp. will finance.

†Calif., Fontana—Fontana School Dist. San Bernardino Co., nursery school, Calif. 4-653-F. $20,800. FWA.

†Calif., San Diego—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 3 standard FWA type nursery schools, Calif. 4-659-F. $61,000. FWA.

†Calif., Santa Paula—Santa Paula Elementary School Dist., Ventura Co., nursery school bldg., Calif. 4-649-F. $20,800. FWA.

†Colo., Garden Home (Denver P. O.)—Westwood School Dist., plans by Chas D. Strong, 1569 Eudora St., two 3 room school bldgs., $148,000. FWA.

†Colo., Westwood—Arapahoe Co., School Dist. 18, Belmont and Irving Schools, Colo. 5-147-F. $148,000. FWA.

†Conn., New Haven—The A. C. Gilbert Co., 319 Peck St., New Haven, Conn., addnl. plant bldgs., $240,000. Defense Plant Corp. will finance.

Fla., Jacksonville—Bd. Pub. Instruction, City Hall, plans by Marsh & Saxelbye, Hildebrandt Bldg., grammar and high school bldg. $156,000.

Ga., Columbus—Comrs. Muscogee Co., Columbus, plans by E. Oren Smith, 918 Benning Blvd., hospital. Applied for FWA funds.

†Ill., Alton—Alton Memorial Hospital, c/o Rev. F. M. Hedger, pres. Bd., Alton, nurses' home addn. $100,000. FWA allot.

†Kan., Eudora—Pub. Housing Auth., NHA, 1205 Electric Bldg., 7 and Taylor Sts., Fort Worth, 2, Tex., 400 unit single person housing, Kan. 14141.

†Kan., Kansas City—Providence Hospital, c/o Sisters of Charity and Mother Superior, 13 and Barnett Sts., Kansas City, Kan., bids soon, hospital expansion, Kan. 14-143. $302,000. FWA allot. Carroll & Dean, R. A. Long Bldg., Kansas City, Mo., archts. CD 12/14—ENR 12/16.

†Ky., Louisville—Reynolds Metal Co., Southern Blvd., Wash., D. C., structural steel plant superstructures. $85,677. Defense Plant Corp. will finance. CD 8/11—ENR 8/17.

★†La., Alexandria—Alexandria Housing Auth., Alexandria, 166 unit 2 story, brick, concrete housing, for NHA. $750,000.

★Md., Cheltenham—Bd. Governors, Cheltenham School for Boys, Cheltenham, plans by Ross & Walton, 5223 Baltimore Rd., Hyattesville, school bldg., alterations, addns. $390,000.

★†Mich., Detroit—Bd. Educ., 1354 Bway., new Trix School, addns. to Marion Law School, Mason School and Higginbotham Schools, Mich. 20-36-N. $533,900. FWA.

†Mich., Eloise—Wayne Co., 1 and 2 story health center bldg., incl. heating tunnel, parking space, etc., Mich. 20-389-N. $134,734. FWA.

Mich., Jackson—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, 14, O., 100 unit family stop-gap housing, Mich. 20346.

†Mich., Lansing—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, 14, O., 100 unit family stop-gap housing, Mich. 20339.

†Minn., Minneapolis—Swedish Hospital, R. Swanson, supt., 915 S. 8 St., plans by Magney, Husler & Setter, 202 Foshay Tower, bids soon rein.-con., brick nurses home addn. $91,000. FWA.

†Miss., Meridan—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., preliminary survey veterans hospital. Over $200,000.

†Neb., Bellevue—City, police and fire department bldg., Neb. 25-155-N. $30,000. FWA.

N. Y., Glens Falls—Dpt. P. Wks., Glens Falls, bids soon, storehouse, Cooper St. $50,000.

†N. Y., Long Island City—U. S. Eng., 120 Wall St., New York, Zone 5, bids soon, housing for postal concentration center.

†O., Akron—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, Zone 15, 100 unit family dwellings, Ohio 33399; 240 unit single person housing, Ohio 33300.

O., Lima—Bd. Trustees Lima Memorial Hospital, W. C. Hansberger, clk., plans bond election Nov. 7, brick, steel, hospital addn. $490,000. Thos. D. McLaughlin & Assoc., Dominion Bldg., archts. CD 11/9—ENR 11/11.

★O., Lima—Bd. Educ., R. Wiseley, pres., bond election Nov. 7, 2 story, bsmt., 100x150 ft., brick, steel, concrete vocational educational school. $595,000. T. D. McLaughlin, Dominion Bldg., archt.

O., Marion—Bd. Educ., J. D. Torrance, clk., Marion, sketches by Thos. D. McLaughlin & Assoc., Dominion Bldg., Lima, brick, steel, concrete high school. Over $250,000.

O., Wapakoneta—Wapakoneta Bd. Educ., E. J. Stroh, clk., plans bond election Nov. 7, high school and addns. to 2 schools, $350,000. Thos. D. McLaughlin & Assoc., Dominion Bldg., Lima, archts.

★Tenn., Memphis—State Dpt. Institutions, State Capital, Nashville, plans by Furbringer & Ehrman and R. Woods, Union Pacific Bank Bldg., 7 story, 400 bed tuberculosis hospital. $1,300,000.

Tex., Brownsville—City, expan., remodeling, equip. replacement municipal electric light plant. Over $40,000.

Tex., Eagle Pass—Eagle Pass Public Schools, Eagle Pass, plans by C. H. Page & Son, Enfield-Grady Bldg., Austin, high school. $250,000.

Tex., Galveston—Galveston Co., c/o Judge, Courthouse, plans by F. Stafford, Guaranty Bldg., 40x80 ft., rein.-con., glass blocks, live stock bldg., and show ring. $40,000.

Tex., Kerens—Kerens Ind. School Dist., Kerens, plans by C. H. Page & Son, Enfield-Gracy Bldg., Austin, 1 story, masonry, steel school. $150,000.

†Wash., Evans—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Zone 1, plans by Jacobsen & Morrison, 712 2 Ave. Bldg., Seattle, Zone 4, 12 unit housing, Wash. 45270. CD 8/14—ENR 8/17.

†Wash., Morton—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Zone 1, plans by Stuart, Kirk & Durham, 4th and Cherry Bldg., Seattle, Zone 4, dismantling 30 houses at Vancouver, hauling same 105 mi. and re-erecting them here, Wash. 45269. CD 8/14—ENR 8/17.

†Wis., Manitowoc Rapids—School Dist. 1, Manitowoc Rapids, 2 story, bsmt., 2 classroom school addn., Wis. 47-186-N. $31,000. FWA.

†Alaska, Anchorage—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 1, Wash., 5 unit family dwellings, Alaska, 50078; and 28 unit single person housing, Alaska, 50079.

C. Z., Cristobal—United Seamen's Service, Inc., recreation bldg., CZ 56-101-F. $35,000. FWA.

★Alta., Edmonton—Providence of Alberta, Edmonton, provincial housing. $1,000,000 voted. Architect, c/o Provincial Housing Com., Parliament Bldg.

B. C., Vancouver—Secy. Dpt. P. Wks., Ottawa, Ont., 4 story, 42x225 ft., 50x80 ft. T sect. projecting 86 ft., width 50 ft., addn. Shaughnessy Hospital, 30 Ave. and Laurel St. $385,000. Mercer & Mercer, 615 W. Hastings St., archt.

Man., Winnipeg—Dominion Government, Ottawa, Ont., plans by Dpt. Pensions & National Health, Daly Bldg., Ottawa, Ont. 400 bed hospital. $400,000. Dpt. P. Wks., Ottawa, Ont., engr.

N. B., Saint John—Domiaion Government, Ottawa, Ont., plans by Dpt. Pensions & National Health, Daly Bldg., Ottawa, Ont.

UBLIC BLDGS. (Proposed Work, Cont'd.)
...$400,000. Dpt. P. Wks., Ottawa, ..., engr.
...N. B., Saint John—Dominion Govt., Ottawa, ...t, health and occupational centre for re... men. $300,000. Dpt. Pub. Wks., Ot... Ont., in association with Dpt. Pen... & Natl. Health, Daly Bldg., Ottawa, ... archts.
...N. B., St. Stephen—Municipality dwellings. ...,000. Architect c/o Lt. Col. H. I. Evans, ...Inspector, Veterans Land Act, (Maritime ...), St. John.
...N. S., Halifax—Dominion Government, ...awa, Ont., plans by Dpt. Pensions & ...nal Health, Daly Bldg., and Dpt. P. ...Wks., both Ottawa, Ont., hospital. $450,000. ...Dpt. P. Wks., Ottawa, Ont., engr.
...Ont., London—Wartime Housing Ltd., 55 ...Bay St., Toronto, 50 addnl. houses, Giles ...Park East Sts. between Hamilton Rd. and ...Falgar St. Over $150,000.
...Ont., Port Arthur—Port Arthur Construc... & Rehabilitaton Com., constructing Sib... Forest School. $250,000.
...Ont., Ottawa—Dominion Government, Ot... ...heating plant. $75,000. Dpt. P. Wks., ..., engr.
...Ont., Ottawa—Dominion Govt., Ottawa, ...improvs. at Central Experimental Farm. ...,000 voted. Dpt. Agriculture, Ottawa, ...hit. Dpt. P. Wks., Ottawa, engr.
...Ont., Ottawa — Dominion Government, ...Ottawa, plans by Dpt. Pensions & National ...alth, Daly Bldg., and Dpt. P. Wks., ...Ottawa, hospital addn. $210,000.
...Ont., Toronto — Dominion Government, ...Ottawa, plans by Dpt. Pensions & National ...alth, Daly Bldg., Ottawa, hospital addn. ...,000. Dpt. P. Wks., Ottawa, engr.
...Que., New Richmond—Dpt. Pub. Wks., ...bec City, plans by A. Dufresne, 143 Royal ...., Beaufort, hospital. $200,000. CD 7/19— ...R 7/27.
...Que., Quebec City—Municipality, J. F. X. ...Chouinard, clk., hospital for incurables. ...,000.
...Que., Ste. Anne de Bellevue—Dominion ...ernment, Ottawa, Ont., plans by Dpt. ...sions & National Health, Daly Bldg., ...awa, Ont., in association with Dpt. P. ...ks., both Ottawa, Ont., hospital exten. ...,000.
...Sask., Saskatoon—Dominion Govt., Ottawa, ..., plans by Dpt. Agriculture, Ottawa, ..., 1 story, 60x300 ft. laboratory. $300,000 ...ated. Dpt. P. Wks., Ottawa, Ont., engr.

...DS ASKED.

Bids Asked After September 1

...D. C., Wash.—Pub. Housing Auth., NHA, ...ngfellow Bldg., 1201 Connecticut Ave. ...W., Zone 15, 440 permanent family dwell... units, D. C. 1-13. Saarinen & Swanson, ...11 S. St. N.W., archts. CD 2/25—ENR 3/2.

Bids Asked September 5

...N. C., Wilmington—Pub. Bldgs. Admin., ...todian's Office, Wilmington, plumbing ...heating repairs at U. S. Custom House ...Appraisers Stores. FWA.

Bids Asked September 6

...N. J., Somerville—Somerset Hospital, ...Rehill Ave., hospital addn., N.J. 25-177. ...,000. FWA. Plans deposit $30. Ex... date. Crow, Lewis & Wick, 200 5 ...., New York, 10, N. Y., archts. CD 7/31 ...ENR 7/27.

...Pa., Williamsport—Lycoming Div. Avia... Mfg. Corp., 1515 Park Ave., laboratory. ...,000. Extended date. CB 8/22—ENR ...4.

Bids Asked September 7

...Mass., Freeport—Federal Works Agency, 101 ...rk Ave., New York, 17, N. Y., brick ...ol, Ma. 17-175-F. Plans deposit $15 ...ch set. A. J. Harriman, 88 Shepley St., ...burn, archt. CD 8/8—ENR 8/10.

Bids Asked September 8

...Mass., Lowell—St. John's Hospital, Bart... St., nurses training bldg., Mass. 19-... N. Plans deposit $15 each set. FWA. ...T. P. Graham, 171 Newbury St., Boston, ...ht. CD 7/27—ENR 8/3.

Bids Asked About September 8

...Tex., Orange—Bd. Educ., schools, Tex. ...-477-C. $210,000. FWA. Hedrick & ...dsley, 811 Southern Standard Bldg., Hous..., archts. CD 8/16—ENR 8/24.

Bids Asked September 9

...Conn., Groton — Federal Works Agency, ...Park Ave., New York, N. Y., 1 story, ...,000 ft. cinder blocks Fort Hill school, ...n. 6-229-N. $30,000. FWA. L. F. Captroni, ...Chapel St., New Haven, archt. CD ...16—ENR 8/24.

Bids Asked September 14

...N. C., Kinston—Eastern Carolina Hospital ...y), Kinston, at office J. J. Rowland, ...t., 330 N. Queen St., nurse's home, Me... al General Hospital, NC 31-396. $87,300. ...WA. Extended date. Plans deposit $15. ...D 8/23—ENR 8/24.

Bids Asked About September 16

†Vt., Burlington — Pub. Housing Auth., NHA, 24 School St., Boston, Mass., 75 unit family housing, Vt. 43054. Over $300,000.

Bids Asked October 17

†Calif., Los Angeles—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash., 25, D. C., addnl. bldg., utilities. Proj. 2265. CD 7/6—ENR 7/13.

Bids Asked

†Mass., Boston—U. S. Eng., 31 St. James Ave., Boston, (selected list bidders), bldgs., barricades, No. 19-023-45-NEG 16. $70,000.

†Mass., Watertown (br. Boston)—U. S. Eng., 31 St. James Ave., Boston, (selected list bidders), 2 storage bldgs. for machine tools, Watertown Arsenal, No. 19-023-45-NEG 15. $100,000.

★†Tex., McGregor—National Gypsum Co., Bluebonnet Ordnance Plant, McGregor, expan. ordnance plant, inc. 4th loading line and revamping other 3 lines. $3,000,000. Defense Plant Corp. will finance. CD 8/23—ENR 11/25.

★†Tex., Waco—General Tire & Rubber Co., 1708 E. Market St., Akron, O., rubber products mfg. plant, $1,500,000. Defense Plant Corp. will finance. CD 8/10—ENR 8/17.

LOW BIDDERS

★†Calif., Hunters Point—Pub. Housing Auth., NHA, Phelen Bldg., San Francisco, furnishing, transporting, erecting 500 prefabricated portable dwelling units, Calif. 4866, from C. T. Lindsay, 824 Taraval St., San Francisco, $556,000. CD 8/22—ENR 8/24.

†Ind., Camp Atterbury—U. S. Eng., 612 Federal Bldg., Louisville, Ky., Aug. 22, 1 story, frame general army hospital (conversion from camp hospital), from A. L. Coupe Constr. Co. Inc., 430 E. Burkett St., Louisville, Ky., $347,435. Est. $389,500. CD 8/11—ENR 8/17.

†Md., Bethesda (br. Wash., D. C.)—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., Aug. 18, heating plant and laundry addn., Naval Medical Research Center, NOY 8716, from A. Dierks & Co., 811 Union St., Brooklyn, 15, N. Y., $68,403. CD 8/8—ENR 8/10.

★†N. J., Newark—Pub. Housing Auth., NHA, 270 Bway., New York, 7, N. Y. Aug. 25, 150 unit housing, N. J. 2-9, from Agostini Bros. Bldg. Corp., 55 W. 42 St., New York, 18, N. Y., Base Bid 1 $773,563. Base Bid 2 $749,563. CD 8/15—ENR 8/17.

★†Pa., Farrell—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., Aug. 22, 150 unit family dwellings, Pa. 20-1, from Haris Const. Corp., 36 Court St., Brooklyn, 2, N. Y., $649,128. CD 8/15—ENR 8/17.

CONTRACTS AWARDED

†Alabama—U. S. Eng., Grant St. west of Westwood St., Mobile, heat treatment bldg. at Ordnance Plant, Etowah Co., to Rust Engrg. Co., Liberty National Bldg., Birmingham, $74,000.

†Ala., Childersburg—U. S. Eng., Grant St. west of Westwood St., Mobile, reconstructing bldg., Alabama Ordnance Plant. Contr. W-01-076-ENG 742, to Rust Eng. Co., Liberty Life Bldg., Birmingham, $60,960.

†Calif., Fallbrook—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., warehouse, service bldg., and incinerator, Naval Ammunition Depot, NOY 9640, to Haddock Engineers, Ltd., P. O. Box 479, Oceanside, $72,750. CD 7/17.

†Calif., San Pablo—Pub. Housing Auth., NHA, Phelan Bldg., San Francisco, site work, utilities in connection with 500 trailers at El Portal Park, Calif. 4-874, to J. R. Armstrong, 6701 Fairmont Ave., El Cerrito, $34,906. CD 8/8.

★†Calif., Stockton—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., constr. camp, railroad tracks, Naval Supply Depot, Oakland Annex, Rough & Ready Island, NOY 10790, to A. D. Schader & Louis Biasotti & Son, 40 W. Clay St. CD 8/11.

†Fla., Fort Pierce—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., anti-aircraft training center, ATB, NOY 10038, to Powell Brothers, 16 S.W. First Ave., Fort Lauderdale. CD 8/29.

†Ill., Chicago—U. S. Eng., 630 Merchandise Mart, miscellaneous work in connection with restoring bldg., Chicago Aircraft Assembly plant, Contr. W-11-032-Eng-1825, to Coath & Goss, Inc., 228 N. La Salle St., $175,774.

★†Ia., Burlington—U. S. Eng., 1709 Jackson St., Omaha, Neb., modification existing loading lines, Iowa Ordnance Plant, th Day & Zimmerman, Inc., Packard Bldg., Phila., Pa., $500,000.

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City, Mo., temporary frame bldgs., etc., Sunflower Ordnance Works Contr. W-32-038-ENG-575, Johnson Co., to Peter Kiewit Sons' Co., Omaha National Bank Bldg., Omaha, Neb., $234,500.

†Ky., Louisville—U. S. Eng., 612 Federal Bldg., warehouse restoration, Contr. W-15-039-ENG-732, to Struck Constr. Co., 147 N. Clay St., $82,919.

★†Md., Perry Point—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash., 25, D. C., hospital and laundry, to Wm. R. Goss Co., 425 N. Michigan Ave., Chicago, Ill., $1,039,000. Bids 8/22. CD 8/24—ENR 7/27, under LB.

Minn., Sleepy Eye—City, J. S. Jensen, clk., furnishing, installing turbine in power plant, to Elliott Co., 216 Baker Bldg., Minneapolis, $63,951. Bids 7/10. CD 6/21—ENR 6/29.

★†Miss., West Point—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., 25, D. C., loading facilities at Gulf Ordnance plant, to Foster & Creighton Co. and Oman Constr. Co., American Bank Bldg., Nashville, Tenn., $3,000,000. Proctor & Gamble Co., Gwynne Bldg., Cincinnati, O., will operate.

★†Neb., Grand Island—U. S. Eng., 1709 Jackson St., Omaha, addnl. loading line at Cornhusker Ordnance Plant, to The Weitz Co., 406 Fleming Bldg., Des Moines, Ia., $500,000. CD 8/18—ENR 8/24.

†Pa., Johnstown—U. S. Eng., Standard Oil Bldg., Baltimore, Md., general construction, Johnstown Forging Works, Contr. W-18-020-ENG-580, to Fred J. Brotherton, Inc., 135 Atlantic St., Hackensack, N. J., $306,065. Bethlehem Steel Co., 315 Locust St., will operate.

★†Tenn., Milan—U. S. Eng., Grant St., west of Westwood St., Mobile, Ala., addns. and conversions Wolfe Creek Ordnance plant, to C. G. Kershaw Contg. Co., 2212 20 Ave. S., Birmingham, Ala., approx. $600,000.

†Tex., Houston—Eastern States Petroleum Co., Inc., 2nd National Bank Bldg., converting existing Butadiene plant unit into feed stock unit for aviation gasoline, to J. F. Pritchard & Co., Gulf Bldg., approx. $200,000. Defense Plant Corp. will finance. CD 8/15—ENR 8/17.

†Tex., Houston—Sheffield Steel Co., Industrial Rd., and Hughes Tool Co., 300 Hughes St., expan. existing steel plant, to W. S. Bellow Constr. Co., Bankers Mtg. Bldg., approx. $410,000. Defense Plant Corp. will finance.

†Tex., Benbrook—U. S. Eng., 231 W. Main St., Denison, altering bldg. Aircraft Plant 4, Contr. W-41-241-ENG-275, to Cain & Cain, Majestic Bldg., Fort Worth, $115,500.

★†Tex., McGregor—National Gypsum Co., Bluebonnet Ordnance Plant, McGregor, asphalt and concrete paving, utilities in plant area, railway lines and facilities at heavy shell ordnance plant, for U. S. Eng., 25 St. and Avenue F, Galveston, to Jas. T. Taylor & Son, 1st National Bank Bldg., Fort Worth, $1,467,079. Defense Plant Corp. will finance. CD 8/25.

†Wis., Merrimac—U. S. Eng., 408 Federal Bldg., Milwaukee, 23 miscellaneous bldgs. at Badger Ordnance Plant, to National Builders, Inc., Foshay Tower, Minneapolis, Minn., $234,550. Bids 8/13. Hercules Powder Co., 908 Market St., Wilmington, Del., will operate. Mason & Hanger Co., 500 5 Ave., New York, N. Y., engrs. and archts.

B. C., Vancouver—J. M. Somerville, secy. Dpt. P. Wks., Ottawa, Ont., 4 story, rein.-con. hospital wing, addnl. story to present administration bldg., both rein.-con., for Dpt. Pensions & National Health, Ottawa, Ont., to E. H. Shockley, 5611 Elm St., $475,000. Bids 8/16, awarded 8/21. CD 7/20—ENR 7/27.

B. C., Victoria—City and Provincial Govt., maternity wing for Royal Jubilee Hospital, to Pollard Constr. Co., Ltd., Victoria, $250,447. CD 8/22—ENR 8/24.

Ont., Ottawa—Dpt. P. Wks., Ottawa, treatment bldg. at Health Centre, near Billings Bridge, east of here, to Henry Dagenais, 136 St. Patrick St., over $150,000. C. D. Sutherland, c/o owner, archt.

Que., Montreal—Dpt. Munitions & Supply, Ottawa, Ont., alterations Nazareth Institute, to a Janin & Co. Ltd., 1440 Sherbrooke St. W., $230,000.

Sask., Regina—Regina General Hospital & Dpt. P. Wks., Ottawa, Ont., laundry at General Hospital, to Smith Bros. & Wilson, Ltd., 104 Dominion Bank Bldg., $43,000. C. D. Sutherland, c/o Dpt. P. Wks., Ottawa, Ont., archt.

COMMERCIAL BUILDINGS

PROPOSED WORK

Ala., Montgomery—Engel Realty Co., 1931 1 Ave. N., Birmingham, plans by H. Pembleton, 2121 Highland Ave., Birmingham, thirty-nine 1 story, brick veneer houses. $200,000.

N. Y., Albany—Albany Hospital, New Scotland Ave., Albany, plans by Gander, Gander & Gander, 17 Steuben St., hospital and nurses home addn. $350,000. Applied to FWA.

N. C., Charlotte—Charlotte Lions Club, C. G. Dudley, pres., recreation center, incl. swimming pool, open air theater, lagoon.

COMMERCIAL BLDGS. (Proposed Work. Cont'd.)

etc., on 110 acres at Old Polo Grounds near East Blvd., Lilac Rd., Princeton and Cumberland Aves. $300,000. Charlotte Park & Recreation Comn. will operate.

O., Cleveland—Greyhound Bus Lines, B. Park in charge const., 2600 Hamilton Ave., plans completed by C. H. Shively, 400 Croghan St., Fremont, 4 addns. to offices, garage and workshop. $300,000.

Okla., Oklahoma City—Peppers Gasoline Refining Co., 1st Natl. Bldg., housing, etc. for employes. $150,000.

★ **Pa., Pittsburgh**—South Side Hospital, H. Yost, secy. Bd. Trustees, 10 S. 12 St., hospital addn. $1,000,000-$1,500,000.

Tex., Houston—Aztec Village, Inc., 7415 Lawndale St., 30 dwellings. $150,000.

Tex., Houston—Ideal Building Co., Mason Park Terrace, 20 to 24 dwellings. $150,000.

Wis., Stevens Point—St. Michaels Hospital, 313 W. Fremont Ave., brick, rein.-con., steel, stone hospital addn., incl. power plant, etc. $300,000.

★ **Ont., Sudbury**—Sisters of St. Joseph, Sudbury, 100 bed hospital. $500,000.

Que., Shawinigan Falls—Reverend Sisters of Grey Nuns, 9 Water St., Ottawa, Ont., hospital addn. $150,000.

BIDS ASKED.

Tex., Keene—Southwestern Jr. College, Keene, 3 story, 43x216 ft. hollow tile, concrete, brick boys dormitory. $150,000. J. J. Black, Midland, archt.

CONTRACTS AWARDED

★ **Ill., Brookfield**—Arden Court, Inc., c/o P. B. Maher, archt., 167 E. Erie St., Chicago, Arden Court Housing, 2 story, brick, pre-cast concrete joist housing, incl. forty-four 3½ room and fifty-six 4½ room units, to Avery Brundage Co., 11 S. La Salle St., Chicago. Est. $535,000.

Mo., Kansas City—St. Louis Catholic Church, 60 St. and Swope Parkway, c/o Bishop Edwin V. O'Hara, Cathedral, general contract remodeling church, to J. J. Cahill Const. Co., 5301 Cleveland Ave., Kansas City, Mo. Carroll & Dean, 1220 R. A. Long Bldg., Kansas City, Mo., archts.

Ore., Portland—Shriners Hospital, 8200 N.E. Sandy St., altering treatment and service rooms, etc., Shriners Hospital for Crippled Children, to Geo. H. Buckler Co., Lewis Bldg. $150,000. Awarded 8/17.

Tex., Houston—Santa Rosa Bldg. Co., 7443 Park Pl. Blvd., 30 frame dwellings, force account, $150,000. J. Knostman, 2017 W. Gray St., archt.

Tex., Raymondville—W. L. Rockey, Raymondville, sixty 1 story, structural clay tile, stucco residences, to A. J. Eilers, Missouri. $240,000. CD 8/16—ENR 8/24.

B. C., Vancouver—E. M. Craig Co. Ltd., 479 Granville St., 4 story, 79x111 ft., concrete apartment. Owner builds. $150,000. W. K. Noppe, S. A. Kayll, 837 W. Hastings St., archts.

N. B., Tracadie—Reverend Hospitalieries de St. Joseph, c/o Rev. Mother Savoia, Tracadie, hospital and sanatorium, to E. M. Morissette, Ltd., 228 Latourelle St., Quebec City, Que., $350,000. CD 5/10.

Ont., Westboro—Carleton Realty Co., Ltd., 18 Rideau St., Ottawa, self contained and duplex dwellings, day labor. $150,000.

Ont., Woodroffe (Postal Dist. Ottawa)—C. A. Bower, Westboro, self contained houses, day labor (except plumbing and electrical work). $150,000.

Que., Limoilou (Postal Dist., Quebec City)—Reverend Sisters of St. Francis, 455 1 Ave., 2 story, 50x265 ft. frame, stone hospital addn., rein.-con. fdn., to E. Frenette, 75 St. Laurent St., Quebec City. Est. $500,000. G. F. Caron, 142 St. John St., Quebec City, archt.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Calif., Los Angeles — PLANT — Ferro Enamel Corp., R. A. Weaver, pres., porcelain enamel, synthetic enamel and industrial paints mfg. plant. Over $150,000.

Conn., Bridgeport — FACTORY — Bridgeport Deoxidized Bronze & Metal Co., 459 Iranistan Ave., rebuilding factory. $40,000.

Ill., Brookfield — PLANT — Electro-Motive Corp., c/o Argonaut Realty Corp., 307 General Motors Bldg., Detroit, Mich., addnl. brick, concrete, steel bldgs.

Ia., West Burlington — LOCOMOTIVE SHOP CONVERSION—Chicago, Burlington & Quincy R.R. Co., H. R. Clarke, ch. engr., 547 W. Jackson Blvd., Chicago, 6, Ill., converting steam locomotive shop to handle heavy repairs on diesel freight, passenger and switching locomotives, $450,000, incl. equip.

La., Farmersville—LOCKER PLANT, etc.—Union Electric Refrigeration Corp., Farmersville, locker plant and slaughtering and food processing facilities. Over $40,000.

La., Logansport — GAS COMPRESSOR STATION—Southern Natural Gas Co., Watts Bldg., Birmingham, Ala., natural gas compressor station imprvs. Over $40,000.

La., Perryville—GAS COMPRESSOR STATION—Southern Natural Gas Co., Watts Bldg., Birmingham, Ala., imprv. natural gas compressor station. Over $40,000.

Me., Thomaston — PLANT — Gray Boats, Inc., M. F. Seavey & F. H. Ames, S. Warren Rd., plant. Over $40,000.

Mass., Brighton—PLANT—New England Rendering Co., Abattoir Grounds, soon lets contract 80 x 185 ft., brick, steel glue plant alterations. $65,000. Office Hollis French, 210 South St., Boston, engr.

Minn., Ada — PLANT — Land O'Lakes Creameries, Inc., L. L. Getten production mgr., 2301 Kennedy St. N.E., Minneapolis, milk dehydrating plant. $50,000.

Minn., Watkins — PLANT — Watkins Co-operative Creamery Assn., Watkins, milk processing plant. $50,000.

N. J., Garfield—PLANT—Heyden Chemical Co., 290 River Rd., soon lets contract 3 story, 45 x 164 ft., brick, steel, mfg. plant. CD 7/27/43—ENR 7/29/43.

N. J., Orange—PLANT—B. B. Rider Corp., 14 Howe Ave., Passaic, soon lets contract 1 story, 150 x 200 ft., brick heat treatment plant. $40,000. H. Gerritsen, 118 Passaic St., Garfield, archt.

N. M., Belen—PLANT—Railways Ice Co., Belen, reconstructing plant destroyed by fire, $310,000.

★ **N. M., Eunice**—PLANT—Panhandle Carbon Co., Inc., Eunice, carbon black plant exten. $1,100,000.

★ **O., Youngstown**—MILLS—Republic Steel Corp., A. McAllister, purch. agt., Republic Bldg., Cleveland, Yoder pipe mills. $770,000.

Texas—PLANT—Brazos Valley Refrigeration Coop., Inc., Belleville, frozen locker plant, Waller Co. $57,000.

Tex., Arp—PLANT—Petroleum Dehydrating Co., Arp., tank bottom treating plant. Over $40,000.

Tex., Dallas—WAREHOUSE, etc.—Southwest Wheel, Inc., 2500 Commerce St., soon lets contract 2 story, 175x204 ft., brick, hollow tile, rein.-con. warehouse and office bldg. Over $100,000. A. E. Thomas, 307 Construction Bldg., engr.

Tex., DeLeon—PLANT—Ross & Thiebaud, DeLeon, bids soon frozen food locker and processing plant. Over $25,000. Plans deposit $25. P. G. Bentley, 407 Burt Bldg., Dallas, archt.

Tex., Goldthwaite — FROZEN FOOD LOCKER AND PROCESSING PLANT—County Locker Corp., Goldthwaite, bids soon frozen food locker and processing plant. $40,000. P. G. Bentley, 407 Burt Bldg., Dallas, engr.

Tex., Harlingen — REFINERY — Tom Glicrease & Associates, Milam Bldg., San Antonio, imprv. oil refinery. Over $50,000.

Tex., Harlingen—PLANT—Stuart Farms Citrus Packing Plant, Harlingen, 1 and 2 story, citrus packing and processing plant, brick, rein.-con. $40,000.

Tex., Houston — WAREHOUSE — Consolidated Venetian Blind Co., 2401 Nicholson St., plans by E. Maddox, 2017 W. Gray St., masonry type warehouse. $40,000.

Tex., Houston—LUMBER YARD—Hale Lumber Co., 3000 McKinney St., lumber yard. Over $40,000.

Tex., Houston—ABATTOIR—Pauly Packing Co., 27 N. Louisiana St., 1 story, 87 x 127 ft., hollow tile abattoir. $40,000.

Tex., Mission — PLANT — Mission Citrus Growers Union, Mission, 1 story, 190x218 ft., citrus packing plant, rein.-con., brick. Over $40,000.

Tex., Ringgold — BOOSTER STATION — Sinclair Refining Co., Fair Bldg., Fort Worth, 5,000 bbl. daily capacity crude oil booster station. $60,000.

Tex., San Antonio—MACHINE SHOP—Acme Wire & Iron Wks., 1343 W. Laurel St., machine shop. $40,000.

Vt., Montpelier—PLANT—Montpelier Co-operative Freeze Locker, Montpelier, freeze locker plant. Over $40,000.

Wis., Janesville — PLANT — Wis. Soybean Corp., H. Traxler, pres., Janesville, 70x150 ft. soybean processing plant, two 70 ft. high silos. $52,332.

Wis., Malden Rock—CREAMERY, etc.—Lake View Dairies Inc., Pepin, plans by Boyum, Schubert & Sorenson, 210 Exchange Bldg., Winona, Minn., creamery addn. and receiving drier bldg.

Wis., Medford—BOTTLING HOUSE—D. Galluzzi, 2440 W. Harrison St., Chicago, Ill., plans by Oppenhamer & Obel, Green Bay, 1 story, 70 x 70 ft., brick, tile, glass block bottling house addn.

Wyo., Wamsutter and **Granger**—PUMPING STATION—Utah Oil Refining Co., Salt Lake City, Utah, pumping station on 111 mi. pipeline. Over $40,000.

Alta., Lethbridge—PACKING PLANT—Alberta Farmer's Union, Lethbridge, packing plant. $50,000.

B. C., Barnet — FACTORY — Bestwood Shingle Co., Ltd., Barnet, box factory, shingle mill, etc. $40,000.

B. C., New Westminster—SERVICE STATION, etc.—Standard Oil Co. of British Columbia, Ltd., 355 Burrard St., Vancouver, service station and garage, Carnarvon St., $40,000.

★ **B. C., Prince George** — PULP MILL — Eagle Lake Sawmill Ltd., Giscome, pulp mill. $1,000,000.

B. C., Vancouver — PLANT — Burrard Woolens Ltd. 303 Lombard Bldg., Winnipeg, Man., textile plant. $40,000.

B. C., Vancouver—PLANT—Osco Tractor Parts Ltd., 603 Hall Bldg., Vancouver, mfg. and repairing plant. $40,000.

B. C., Vancouver — PLANT — Western Chenille Co. Ltd., 303 Lombard Bldg., Winnipeg, Man., textile plant. $40,000.

B. C., Wells—MINING DEVELOPMENT—Stewart Creek Mining Co., Ltd., c/o Bralorne North, Wells, mining development, bldgs., smelting and milling pant. $50,000.

Man., Winnipeg—PLANT—Winnipeg Cold Storage Co., Ltd., 422 Jarvis Ave., alterations and construucting new rein.-con. bldg. $61,400.

N. B., Bantalor—STATION, etc.—Canadian National R. R., H. A. Dixon, ch. engr., 360 McGill St., Montreal, Que., station, sections houses, section shanty, pump house, water tank. $60,000.

N. B., New England—MILL—Miramichi Lumber Co., Minto, mill bldgs., etc. $40,000.

N. B. Rothwell—PLANT—Avon Coal Co. Ltd., Minto, bldgs., shaft, ramps, stores, houses, etc. $50,000.

N. B., Saint John—POWER HOUSE—New Brunswick Electric Power Comn., Saint John, power house on Grand Manan Island. $40,000. CD 11/10—ENR 11/18.

Ont., Chatham—PLANT—Hutton & Souter, archts., 36 James St. S., Hamilton, soon let contract Plant 4 addns., alterations, for Chrysler Corp. of Canada, Ltd., 300 Tecumseh Blvd. E., Windsor. $75,000.

Ont., Deseronto—PLANT—Metcalf Food Ltd., Deseronto, box, crate and basket, etc. mfg. plant.

Ont., Hamilton—PLANT—Hamilton Bridge Co. Ltd., Bay St. N., boiler house at plant $70,000.

Ont., Hawkesbury—PLANT—Canadian International Paper Co., Ltd., Sun Life Bldg., Montreal, Que., addnl. bldgs. $485,000.

Ont., Norwich—PLANT—Witts Fertilizer Works, Ltd., Norwich, plant. $50,000.

Ont., Ottawa—PLANT—Seven Up of Ottawa, Ltd., 1440 W. Ste. Catherine St., Montreal, Que., soft drink mfg. and bottling plant. $40,000.

Ont., Picton—WAREHOUSE, etc.—Canada Steamship Lines, Ltd., Victoria Sq., Montreal, Que., warehouse, wharf imprvs. $40,000.

Ont., St. Marys—MILL—Great Star Flour Mills, Ltd., St. Marys, mill addn. $40,000.

Ont., St. Thomas — COLD STORAGE PLANT—National Grocers Co., Ltd., 7 St. Catherine St., concrete, brick plant. $40,000.

Ont., St. Thomas — PLANT — Erie Iron Wks., Ltd., St. Thomas, plant.

Ont., Stratford—PLANT—Stratford Sheet Metal Works, Ltd., 560 Erie St., plant addn. $40,000.

Ont., Toronto — MINERAL DEVELOPMENT—Ellburn Porcupine Gold Mines, Ltd., c/o M. Aiken, 88 W. Richmond St., developing mineral lands and deposits, digging, raising, crushing and washing plant. $75,000.

Ont., Toronto—PLANT—Premier Operating Corp., Ltd., 21 Dundas Sq., plans by H. G. Duerr, 910 Lumsden Bldg., plant. $75,000.

Ont., Toronto—PLANT—Vitagraph, Ltd., 21 Dundas Sq., plans by H. G. Duerr, 910 Lumsden Bldg., plant. $75,000.

Ont., Windsor—PLANT—Don Curtis Automotive Co., Ltd., Windsor, plant. $40,000.

Ont., Windsor—PLANT—Nickleson Tool & Die Co., Ltd., Windsor, plant. $40,000.

Que., Chicoutimi — PLANT — Saguenay Peat-Moss Co., Ltd., c/o Geo. Proulf, C.E., Chicoutimi, plant. $50,000.

Que., Joliette—PLANT—S. Farbstein Co. Inc., Joliette, plant. $40,000.

Que., Levis—PLANT—La Cie Hoir Aluminum & Stainless Steel, Ltd., 229 St. Laurent St., exten. plant. $40,000.

Que., Limoilou (Postal Dist. Quebec City)—PLANT—Coca Cola Co. of Canada, Ltd., 300 Bellechasse St., Montreal, plant. $150,000.

...USTRIAL BLDGS. (Proposed Work, Cont'd.)

..., Longueuil—MACHINE SHOP—Lawton Machine Works, 949 St. Dominique St., Montreal, plans by Luke & Little, 1410 Guy St., Montreal, machine shop. $40,000.

..., Lorettieville—FACTORY—Telesphore ... Registered, slipper factory. $40,000.

..., Montreal—MINERAL LANDS DEVELOPMENT—Consumers Industrial Minerals Ltd., c/o R. Brossard, 507 Place d'Armes, mineral development, digging, raising, washing plant, etc. $40,000.

..., Montreal — FACTORY — Dominion ... Co., Ltd., 2336 St. Ambroise St., plans by J. Kewell, 4301 Decarie Blvd., factory. $40,000.

..., Montreal—FOUNDRY, etc.—Joliette ... & Machine Industries Ltd., c/o ... Lamb, 4301 Dandurand St., brass and ... foundry, smelting and tinplate plant. $40,000.

..., Montreal—PLANT—St. Louis Textiles Ltd., c/o M. Liverman, 159 W. Craig St., plant. $40,000.

..., Montreal — PLANT — Seven Up of ... Ltd., 1440 W. Ste. Catherine St., soft drink mfg. and bottling plant. $50,000.

..., Montreal—FACTORY—Weston Bis... Co., Ltd., 16 Grey Nun St., factory. $40,000.

..., Nicolet—FACTORY—Henri Valliere ...niture Co., Nicolet, furniture factory. $40,000.

..., Pascalis — SAW MILL — Antonio ... Registered, Pascalis, saw mill, etc. $40,000.

..., Quebec City—GRAIN ELEVATOR, ... Begin & Bro. Reg., 142 St. Vallier St., ... elevator, $50,000; mill and warehouse, $40,000.

..., Quebec City — PLANT — Electro ...ents Ltd., c/o A. Laplante, 43 Ste. Anne ...melting, refining-metallurgical and mill... plant. $50,000.

..., St. Jerome — FACTORY — Rochon ...er & Furniture Co., Ltd., St. Jerome, ... $50,000.

..., Thetford Mines—PLANT—L. Mac... Metallurgical Ltd., Thetford Mines, ... exten. $40,000.

..., Three Rivers—PLANT—Combustion ... Three Rivers, plant. $40,000.

..., Village Huron (Postal Dist. Quebec) —FACTORY—The Kondiaronk Slipper ... of Canada, Ltd., Huron Village, factory. $40,000.

..., Regina—LAUNDRY—Grey Nuns ...itiate Bd., Regina, plans by Van Egmond ...storey, McCallum Hill Bldg., laundry. $40,000.

... ASKED.

Bids Asked After September 1

..., New Braunfels—MILL—New Braun... Textile Cotton Mills, W. Dillard, vice ... and mgr., New Braunfels, 1 story, ... ft. mill. $45,000. Robert & Co., ... Allen Bldg., Atlanta, Ga., engrs. CD ...ENR 8/3.

Bids Asked September 6

..., Cranston—TRUCK GARAGE, etc.— ...y Express Co., Inc., 316 Crown St., New ..., Conn., 1 story, brick, steel, truck ...ge and freight terminal, Elmwood Ave. ...04, L. F. Caproni, 1321 Chapel St., New ..., Conn., archt.

Bids Asked

..., Springfield — FOUNDRY — National ... Co., 1402 Sheridan Ave., 1 story, ...00 ft., brick, steel factory addn. O. D. ...ver, 1740 E. 12 St., Cleveland, engr.

..., Phila.—TRUCK TERMINAL—Associated Transport, Inc., c/o A. J. Carson, ..., 225 Memorial Ave., West Springfield, ... revised plans 1 story, 90 x 100 ft., ... steel, concrete freight facilities. Over ...,000. Extended date. CD 8/14—ENR 8/17.

..., Green Bay — GARAGE — Foeller, ...ner, Bernero, Safford & Jahn, archts., ...ine St., 1 story, 40x202 ft. and 47x66 ft., ...crete block, face brick, garage addn., ...crete fdn. for Jones Transfer Line, 404 ...ay St.

..., Sun Prairie—FACTORY—L. Sibera, ..., 102 W. Mifflin St., Madison, 1 story, ... 100 ft., rein.-con., steel factory addn., ...crete fdn., for Wise, Porcelain Co., Sun ...rie.

..., St. John—PLANT—Canadian Pacific ... J. E. Armstrong, ch. engr., Windsor ... Montreal, Que., cold storage plant addn. $40,000.

... BIDDERS

..., Trenton—PLANT—Eastern Aircraft ...n of General Motors, Parkway Ave., paint ... shop, from Eastern Const. Co., 809 E. ... St., $150,000.

..., Montreal — BOTTLING PLANT — ...ia Dry Ginger Ale Ltd., Royal Bank ... bottling plant Decarie Blvd. and Cote ...ance Rd., from R. and B. A. Ryan, Ltd., 1803 William St. Est. $150,000. CD 7/6—ENR 7/13.

CONTRACTS AWARDED

Ala., Childersburg—BLENDING TOWER—E. I. DuPont de Nemours & Co., Childersburg, blending tower, to Rust Engrg. Co., Liberty Life Insurance Bldg., Birmingham, $60,000.

★**Calif., Los Angeles** — WAREHOUSE — Owner, c/o Harry T. Miller, archt., 4814 Loma Vista Ave., 6 story, rein.-con. warehouse, Imperial St. near 7 St., to Wm. P. Neil Co., 4814 Loma Vista Ave., $400,000-$500,000.

Conn., New Haven—FACTORY—A. C. Gilbert Co., 319 Peck St., 2 story, 60x160 ft., brick, rein.-con. factory, Peck St., to Fusco-Amatruda Co., 59 Amity Rd. Est. $100,000. CD 8/18—ENR 8/24.

★**Ga., Savannah**—STEAM PLANT, etc.—Union Bag & Paper Co., Lathrop Ave., design and construction high pressure steam plant, new power and generating station, etc., to Rust Engineering Co., Liberty Life Insurance Bldg., Birmingham, Ala., approx. $1,500,000.

Kan., Fort Scott—MILL—Flour Mills of America, Fort Scott, mill addn., to Tillotson Constr. Co., 1215 Jones St., Omaha, Neb., approx. $50,000.

La., New Orleans—TRUCK TERMINAL—Herrin Motor Lines, Inc., 1516 Thalia St., 1 and 2 story, brick, steel, concrete truck freight terminal, to D. O. Furr, 718 Edwards St., Shreveport, $82,000. E. A. George, Route 4, Box 324, Shreveport, archt.

Mass., Fitchburg — PLANT — Independent Lock Co., 35 Daniels St., brick, steel plant, to Acorn Northeastern Co., 29 Pearl St., Worcester. Est. $70,000.

Mich., Detroit — TRAIN SHEDS — Fort Street Union Depot Co., foot of Third St., brick, steel, concrete train sheds, to Walbridge Aldinger Co., 409 Griswold St. Est. $50,000. CD 6/20—ENR 6/22.

Mont., Havre — DIESEL HOUSE, etc. — Great Northern Ry. Co., C. M. Nye, ch. engr., 175 E. 4 St., St. Paul, Minn., diesel house and store, to Askevold Constr. Co., 1st Natl. Bank Bldg., Great Falls, $388,000.

Mont., Livingston—PLANT—Northern Pacific Ry. Co., B. Blum, ch. engr., 176 E. 5 St., St. Paul, Minn., modernizing steam plant with two new 700 hp. boilers, modern facilities for coal handling and storage, enlargement, etc., to Austin Co., 16113 Euclid St., Cleveland, O. Est. $300,000.

N. J., Arlington—STORAGE—E. I. du Pont de Nemours & Co., 1007 Market St., Wilmington, Del., 1 story, 50 x 100 ft. nylon storage bldg., concrete block to J. Benson, 51 Pavonia Ave., $45,000. Bids 7/27. CD 7/25—ENR 7/27.

N. J., Bound Brook—WAREHOUSE—T. C. Calco Chemical Corp., Bound Brook Rd., 1 story, 200 x 200 ft., brick, steel warehouse to E. De Christofer, 21 High St., $100,000.

N. J., Newton—PLANT—Auken Co. Inc., 9 Hicks Ave., 1 story, 50 x 300 ft., brick, tile plant, to Wm. Houghton, Jr., 223 Main St., $50,000.

O., Cleveland—FACTORY—Hickox Electrical Instrument Co., 10540 Dupont Ave., brick, steel, concrete factory addn., to R. E. Nixon Co., 1737 Euclid Ave. Est. $40,000. H. M. Morse Co., 1500 E. Superior Ave., engr.-archt.

O., Cleveland — ENGINE HOUSE, etc. — Pennsylvania R.R., J. L. Gressitt, ch. engr., Broad St. Station Bldg., 1617 Pennsylvania Blvd., Phila. 4, Pa., engine house addn., 5 stalls, 1 story, 60 x 160 ft. machine shop addn., brick, steel, concrete, to Hadlock-Krill Co., 3169 E. 33 St. Est. $200,000. CD 7/24—ENR 7/27.

Okla., Oklahoma City—PLANT—Peppers Gasoline Refining Co., 1st Natl. Bldg., 10 million cu. ft. daily cap. natural gasoline plant, in NE NW of 32-14-4w. Owner builds $250,000.

Okla., Ponca City—PLANT—Continental Oil Co., Ponca City, reconstructing destroyed portion 100-octane gasoline plant, force account, $75,000. CD 8/18—ENR 8/24.

Pa., Phila.—STORAGE—Phila. Dairy Products Co., 45 and Parrish Sts., brick, storage bldg., to R. E. Lamb & Son, Inc., 242 N. 19 St., $50,000. Awarded 8/21.

Tex., Edinburg—PACKING PLANT—Edinburg Citrus Assn., Edinburg, 1 story, citrus packing plant unit, incl. sterilization and coloring rooms, brick, rein.-con. force account. $40,000. CD 8/17—ENR 8/24.

★**Tex., Houston**—PLANT—Converted Rice, Inc., 5500 Blk. Clinton Dr., rice plant, to W. S. Bellows Constr. Co., Bankers Mtg. Bldg., approx. $600,000.

Tex., Houston—PLANT—Gaylord Container Corp., 6037 Esperson St., 1 and 2 story, 94x173 ft., brick, hollow tile, etc. container mfg. plant unit, to L. O. Stocker Co., 1673 Arcade Bldg., St. Louis, Mo., approx. $86,000. CD 8/17—ENR 8/24.

Tex., Houston—BAKERY—Home Bakery Co., 1213 Westheimer Rd., brick, concrete, hollow tile, etc. bakery, to B. Kettle, 4416 Kyle St., approx. $40,000. R. Hoyt, 1570 Danville St., archt.

Tex., Houston—COLD STORAGE—Magnolia Sea Food Co., 1501 Congress St., 1 story, brick, hollow tile, rein.-con. cold storage bldg., to B. W. Holtz, 1313 Sul Ross St., approx. $40,000.

Tex., Houston—PACKING PLANT—Pauly Packing Co., 27 N. Louisiana St., new meat packing plant, 4700 Blk. Calhoun Rd., force account. $110,000. CD 4/25—ENR 4/27.

Tex., McAllen — PLANT — McAllen Citrus Assn., McAllen, 2 story, citrus packing and processing plant addn., brick, rein.-con. force account. $50,000. CD 8/3—ENR 8/10.

Wash., Bellingham—PLANT—Cyr Bros. Dairy, 313 Champion St., 1 story, 70x102 ft. dairy products plant, to Gaasland Constr. Co., 1161 Ellis St. Est. $75,000.

Wis., Greenfield (P. O. Milwaukee)—TEST HOUSE—Allis-Chalmers Mfg. Co., 1126 S. 70 St., West Allis, 1 and 2 story, 90 x 100 ft., brick, rein.-con., test house, to Hunsinger Const. Co., Station K, Milwaukee, $314,580.

Ont., Toronto—WAREHOUSE, etc.—Atlas Steels, Ltd., 401 Fleet St. W., warehouse and office bldg. on Ordnance St. N. and E. side, to Pigott Const. Co. Ltd., Pigott Bldg., Hamilton, about $80,000. CD 7/25—ENR 8/10.

Ont., Toronto—PLANT—E. A. Cross, engr., 991 Bay St., plant addn. for Selberling Rubber Co. of Canada, Ltd., Paton Rd., to Mollenhauer Contg. Co., Ltd., 185 Perth Ave., $50,000. Bids 7/17. CD 7/11—ENR—7/13.

Ont., Toronto—PLANT—Square D Co. of Canada, Ltd., 673 Dupont St., 1 story, 240x250 ft. brick, steel, plant, boiler house, and 50x120 ft. office bldg., Industrial St., to J. Robt. Page, 18 Toronto St., about $100,000. Ewart, Armer & Byam, Excelsior Life Bldg., engrs.

Que., Duparquet — DRILLING — Rambull Gold Mines, Ltd., c/o J. C. Honsberger, engr., Val d' Or, preliminary drilling, 10,000 ft., to Acme Diamond Drilling Co., Ltd., Timmins, Ont. Est. $30,000.

Que., Montreal—PLANT—Ayerst Mc Kenna & Harrison, Ltd., 485 Mc Gill St., addn. research laboratory group and penicillin unit, Mathieu St., to Foundation Co. of Canada, Ltd., 1438 Sherbrooke St. W., $40,000.

Que., Montreal—FACTORY—Food Colours, Ltd., 1570 Iberville St., factory, day labor. Thibedeau & Germain, 1178 Phillips Pl., archts. Lalonde & Valois, 406 Cathcart St., engrs. CD 8/25—ENR 8/31.

UNCLASSIFIED

PROPOSED WORK

★**†Calif., Mather Field (br. Sacramento)** —RUNWAYS, etc.—U. S. Eng., 1209 I St., Sacramento, Zone 5, reinforcing and exten. runways, reinforcing existing taxiways, constr. new taxiways, reinforcing existing aprons, revising fueling sys., etc. $2,000,000.

Calif., San Diego — FERRY SLIPS — San Diego & Coronado Ferry Co., Union Bldg., altering emergency ferry slips. $125,000.

★**†Calif., San Francisco**—HARGAR, etc.—U. S. Eng., 74 New Montgomery St., San Francisco, Zone 19, hangar, service apron, addnl. bldgs., wash rack, loading mat, essential utilities, $1,000,000.

†Colo., Pueblo — AIRPORT IMPROVEMENTS—City, airport imprvs. $65,100 CAA.

Ill., Ottawa — FLASHING LIGHT SIGNALS, etc.—Chicago, Rock Island & Pacific R.R., F. W. Thompson, ch. engr., La Salle St. Station, Chicago, Zone 5, flashing light signals and short arm gates at grade crossings with Champlain, Guion, Columbus, La Salle and Chestnut Sts. $31,487.

Indiana — FARM CONNECTIONS—Dubois Rural Electric Coop, Inc., Jasper, farm connections, Dubois Co. $50,000.

Indiana—FARM CONNECTIONS—Harrison County REMC, Corydon, farm connections, Harrison Co. $75,000.

Ia., Algona—AIRPORT—Approved $42,000 bond issue, airport. CD 8/9.

Ia., Sibley—AIRPORT—Approved $35,000 bond issue, airport. CD 8/9—ENR 8/17.

Ia., Humboldt—SWIMMING POOL—Approved $30,000 bond issue, swimming pool. CD 7/25—ENR 7/27.

Kentucky—FARM CONNECTIONS—Clark Rural Electric Coop. Corp., Winchester, farm connections, Clark Co. $25,000.

Louisiana and Arkansas—NATURAL GAS LINE—United Gas Pipe Line Co., 1525 Fairfield, Shreveport, La., laying 8 in. natural gas line under Ouachita River, in Bayou Bartholomew area. Over $25,000.

La., Kenner—AIRPORT BLDGS.—City of New Orleans, plans by Moise H. Goldstein & Associates, American Bank Bldg., New Orleans, hangar, communications bldg., central tower and administration bldg., at Moisant Airport. $296,563. H. A. Benson, Canal Bank Bldg., New Orleans, engr.

UNCLASSIFIED (Proposed Work, Cont'd.)

La., Logansport — GAS LINES — Southern Natural Gas Co., Watts Bldg., Birmingham, Ala., gas lines. Over $40,000.

Mich., Flint—HANGAR—Buick Motor Div. General Motors Corp., Flint, making plans, brick, steel, concrete hangar, Bishop Airport. $50,000.

Missouri — FARM CONNECTIONS — Atchison-Holt Electric Coop., Rockport, farm connections, Atchison Co. $50,000.

★**Nebraska** — TRAFFIC CONTROL — Chicago, Burlington & Quincy R.R. Co., H. R. Clarke, ch. engr., 547 W. Jackson Blvd., Chicago 6, Ill., installing 225 mi. centralized traffic control between Lincoln and McCook. $3,000,000.

†N. C., Cherry Point—AIR STATION CONSTRUCTION—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., architectural and engineering services by Tucker & Howell, Rhoades-Haverty Bldg., Atlanta, Ga., construction work, Marine Corps Air Station.

Okla., Oklahoma City—GAS LINES—Peppers Gasoline Refining Co., 1st Natl. Bldg., addnl. gathering gas lines. Over $40,000.

Okla., Oklahoma City—TRANSMISSION LINE—Oklahoma Gas & Elec. Co., 321 N. Harvey St., high voltage transmission line in West Edmond oil field zone. Over $35,000.

†Ore., Klamath Falls—AVIATION FACILITIES—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., architectural and engineering services by Whitehouse, Price & Perrin, Hutton Bldg., Spokane, Wash., for addnl. aviation facilities, Naval Air Station.

R. I., Bristol—SWIMMING POOL, etc.—Town, H. Hill, chn. Committee, Town Hall, sketches swimming pool, recreational facilities. Over $25,000.

Tex., Andrews — PIPELINE CARRIER — Magnolia Pipe Line Co., Magnolia Bldg., Dallas, 5¼ mi. 6 in. loop pipeline carrier. $45,000.

Tex., Montague—OIL PIPELINE—Sinclair-Prairie Oil Co., Fair Bldg., Fort Worth, 3½ mi. 6 in. and 1¼ mi. 4 in. crude oil pipeline connections. $45,000.

Tex., Seminole—OIL PIPELINE—Atlantic Pipe Line Co., Magnolia Bldg., Dallas, 5½ mi. 4 in. crude oil pipeline. $45,000.

Tex., Taylor—AIRPORT—City, H. G. Richards, mgr., City Hall, voted $60,000 bonds, airport. CD 7/17.

†Va., Chincoteague—AIRPORT IMPROVEMENTS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., airport imprvs., Naval Auxiliary Air Station, Spec. Nos. 13922 and 10397, NOY 9337.

★**†Washington**—TRANSMISSION LINE—Bonneville Power Admin., P. O. Box 3621, Portland, Ore., 54,000 mi. 230,000 volt transmission line from Columbia to Vernita, with switching station at Columbia (20 mi. southeast of Wenatchee) and addnl. facilities at Midway substation. $2,670,000. L. C. Stewart, purch. officer.

B. C., Esquimalt—WHARF, etc.—J. H. Todd & Sons, Ltd., Esquimalt Harbour, wharf and cannery bldgs. $75,000.

B. C., Victoria—AIRPORT—Municipality, airport at Elk Lake. $150,000. G. M. Irwin, City Hall, in association with Dpt. Transport, Ottawa, Ont., engrs.

B. C., Westview—HARBOR IMPROVEMENTS—Dpt. Pub. Wks., Ottawa, Ont., plans made harbor imprvs. $95,000.

Man., Portage la Prairie—GRAND STAND Municipality, grandstand at Exhibition grounds. $25,000.

Man., Winnipeg—SWIMMING POOL—Municipality, swimming pool, St. Johns Park. $70,000.

Newfoundland, St. Johns—WHARF—Imperial Oil Ltd., Sarnia, Ont., concrete wharf. $30,000.

North West Territory, Yellowknife—AIRPORT—Dpt. Pub. Wks., Ottawa, Ont., airport, roads, waterfront facilities, Mackenzie Dist., for Dpt. Mines & Resources, Ottawa, Ont. $140,000.

★**North West Territory, Yellowknife**—POWER DEVELOPMENT — Calgary Power Co., Ltd., 504 Insurance Exch. Bldg., Calgary, Alta., power development Lockhart River, plant not less than 35,000 hp. $2,000,000.

N. S., Spencers Island—WHARF—Dpt. P. Wks., Ottawa, Ont., plans made repairing wharf. $25,600.

Ont., Kingston — ARENA — City, Wm. Watts, chn., arena. $300,000.

P. E. I., Charlottetown—AIRPORT—Secretary Dpt. Transport, Ottawa, Ont., enlarging airport. $75,000.

BIDS ASKED.

Bids Asked After August 28

†Ark., Texarkana—AIRPORT REPAIRS—Civil Aeronautics Admin., P. O. Box 1689, Fort Worth, 1, Tex., grading, concrete runoff channels, shaping shoulders, fertilizing, seeding, sprigging, sodding. Plans deposit $10.

Bids Asked September 6

†Vt., Barre and Montpelier—AIRPORT RUNWAY, etc.—Civil Aeronautics Admin., 385 Madison Ave., New York, 17, N. Y., installing runway marker lights and supplemental work, Extended date. Plans deposit $10. CD 8/14—ENR 8/17.

Bids Asked After September 6

†Tex., Kelly Field—NIGHT LIGHTING SYSTEM—U. S. Eng., Fort Sam Houston, outside night lighting sys. for taxiways. $35,000.

Bids Asked September 13

Illinois—ELECTRIC LINES—Southeastern Illinois Electric Cooperative, Inc., B. D. Gates, pres., Harrisburg, approx. 30.55 mi. electric lines consisting 13 separate taps from existing lines in Franklin, Saline and Williamson Counties. Plans deposit $5. Michael Drazen & Associates, 4903 Delmar Blvd., St. Louis 8, Mo., engrs.

Bids Asked September 16

†Alabama—SPRINKLER SYSTEM—U. S. Eng., Grant St. west of Westwood St., Mobile, installing sprinkler sys., for warehouses at Army Air Forces Specialised Depot. Inv. 01-076-45-12, Etowah Co. $35,000.

Bids Asked September 18

★**W. Va., Charleston**—GRADING, etc.—At offices of County Court of Kanawha Co., C. C. Calvert, pres., Kanawha County Courthouse, grading, drainage for 3 landing strips and administration area for airport. Plans deposit $15. Whitman, Requardt & Associates, 1304 St. Paul St., Baltimore, 2, Md., engrs.; adv. ENR 8/31. CD 7/17—ENR 7/20, Unclassified, Federal Govt.

Bids Asked September 20

Mo., St. Louis—RUNWAY REPAIRS—City, c/o M. M. Kinsey, pres. Bd. P. Serv., 304 City Hall, repairing, resurfacing 4,500 ft. runway at Lambert-St. Louis Municipal Airport. $35,000. CD 6/9—ENR 6/15.

Bids Asked September 26

Mass., East Boston (sta. Boston)—AIRPORT FILLING, etc.—Commonwealth of Massachusetts, Dpt. P. Wks., 100 Nashua St., Boston, placing approx. 10 million cu. yd. hydraulic filling for Embankments A and B at General Edward Lawrence Logan Airport. H. A. MacDonald, comr. P. Wks.; adv. ENR 8/31.

Bids Asked

Utah and Wyoming—OIL PIPELINE—Utah Oil Refining Co., Utah Oil Bldg., Salt Lake City, Utah, 111 mi. 6 in. crude oil pipeline carrier from Salt Lake City, Utah, to Fort Laramie, Wyo. Over $100,000.

LOW BIDDERS

Calif., Los Angeles—PARK AND PLAYGROUND DEVELOPMENT—Bd. Supervs. Los Angeles Co., Hall of Records, Los Angeles, Aug. 23, grading, landscaping, etc., Soledad Park and playground, Spec. 719, from J. D. O'Hanlon, 611 W. 106 St. $36,350.

★**†Calif., Port Chicago**—CLASSIFICATION YARD, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., Aug. 22, ammunition classification yard and lumber storage at Naval Magazine, Spec. 14333, NOY 9355, from Fredrickson & Watson Constr. Co., 873 81 Ave., Oakland, $743,545. CD 8/18, classification yard, barricaded siding, services at Inland Storage Area, Naval Magazine, Spec. 14730, NOY 10312, from MacDonald & Kahn, Inc., 200 Financial Center Bldg., San Francisco, $1,-303,468. CD 8/15.

†Fla., St. Petersburg—AIRPORT—City, new Albert Whittried airport, from R. C. Huffman, Estelle and Highland Ave., Tampa, Zone 1, $346,795. CAA.

★**†Md., Cumberland**—AIRPORT—Dpt. P. Wks., City Hall, Aug. 18, airport construction, Sched. 1, excavation, Sched. 2A, black top paving, from Grandview Co., 6 Grandview Ave., Mt. Vernon, N. Y., $467,950 and $391,212 respectively***Sched. 2B, concrete paving, from Wooderest Constr. Co., 369 Lexington Ave., New York, 17, N. Y., $353,240. CAA. CD 8/7—ENR 8/10.

†Md., Patuxent River (br. Wash., D. C.)—AVIATION WAREHOUSE—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., aviation warehouse, Naval Air Station, NOY 9346, from Consolidated Engineering Co., 30 E. Franklin St., Baltimore, $194,600. CD 8/14.

†Vt., Barre and Montpelier—AIRPORT—Civil Aeronautics Admin., 385 Madison Ave., New York, 17, N. Y., Aug. 21, Proposal No. 1-45-369, clearing 15 acres, excavating 2,500 cu. yd., drainage, grading, fertilizing, seeding ant erosion protection work, from Bayer & Mingolla, 90 Lincoln St., Worcester, Mass., (1) $57,429 (1-2) $66,501. CD 8/14—ENR 8/17.

†Wis., Merrimac—TRAIN TRACKS—U. S. Eng., 408 Federal Bldg., Milwaukee, Aug. 23, train tracks at Badger ordnance plant, from Jutton-Kelly Co., 328 N. Bway., Milwaukee, Zone 2, $87,228. Hercules Powder Co., 908 Market St., Wilmington, Del., will operate. Mason & Hanger Co., 500 5 Ave., New York, N. Y., engrs.-archts.

Que., Montreal—COMFORT STATION—Municipality, J. A. Mongeau, clk., comfort station, from J. J. Shea & Co., Ltd., 166 W. Ste Catherine St., $28,355. D. Beaupre, 1255 St. Joseph St., Verdun, archt.

CONTRACTS AWARDED

★**†Calif., Fairfield** — RUNWAY SHOULDERS, etc.—U. S. Eng., 2109 S St., Sacramento, Zone 8, stabilizing shoulders for runways, taxiways, relocating hangar areas, seeding spoil areas, clear zones at Fairfield-Suisun Fairfield, to J. A. Casson Co., and N. M. Ball Sons, 22105 Meekland Ave., Hayward, $945,943. CD 7/3—ENR 7/6.

†Fla., Boca Chica—AIR STATION BLDGS.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., mess hall and cold storage space addn., Naval Air Station, NOY 10353, to P. McCart, 97 Congress Bldg., Miami, Zone 32, $266,877.

†Kan., Hutchinson — AIR STATION POWER PLANT, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., power plant imprvs., addns., incl. conversion to gas fuel, Naval Air Station, NOY 10238, to Cowen Constr. Co., 116 N. Bway., Shawnee, Okla., $148,254.

†La., Camp Claiborne (br. Alexandria)—MOCK-UP AREAS, etc.—U. S. Eng., 900 Bway., Little Rock, Ark., construction, completion mock-up areas, grading, etc., Cont. W-03-060-ENG-172, to Triangle Constr. Co., Alexandria, $76,619.

†N. J., Newark—AIRFIELD BLDG.—U. S. Eng., 120 Wall St., New York, 6, N. Y., airfield bldg. addns., alterations, Newark Auxiliary Air Field, Contr. W-30-076-ENG-1771, to Chas. Christensen & Sons, 921 Bergen Ave., Jersey City, $89,885.

★**N. Y., Idlewild**—AIRPORT GRADING—Dpt. Marine & Aviation, Pier A, North River, New York, Zone 4, Contr. 4, grading, etc., 3,400,000 cu. yd. fill, to Circle Constr. Corp., Brockway Pl., White Plains, 39c per cu. yd. Est. $1,345,000. Bids 8/9. CD 8/11—ENR 8/17, under LB.

†Okla., Enid—TAXIWAY, etc.—U. S. Eng., 416 Wright Bldg., Tulsa, Zone 3, taxiway construction and pavement reconditioning, etc., Sol. No. 34-066-45-1, to J. Briscoe, 614 E. 11 Ave., Stillwater, $130,000. Bids 7/31.

Pa., Phila.—STREET CAR LINE—Phila. Transportation Co., Broad and Locust Sts., new line construction, paving, addns., alterations, day labor. $250,000.

Texas—TRANSMISSION LINES—Swisher Co-Operative, Tulia, 100 mi single phase electric transmission line in Swisher Rural Dist., to Taylor & Montgomery, Lubbock, $60,340.

†Va., Norfolk — FENDER SYSTEM REPAIRS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., fender sys. repairs, Imperial Tobacco Docks, Berkeley Ward, NOY 10807, to Tidewater Constr. Corp., 547 Front St., $33,844.

†Wash., Seattle—AIR STATION STOREHOUSE, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., storehouse, barracks, taxiway, Naval Air Station, Whidbey Island, NOY 10359, to Western Constr. Co., 605 Artic Bldg., Seattle, Zone 4, $106,000.

Wyoming and Colorado—PIPELINE CARRIER, etc.—Utah Refining Co., Utah Oil Bldg., Salt Lake City, Utah, 111 mi. 6 in. crude oil pipeline carrier starting in Lost Field, Colorado and connecting with trunkline in Wyoming, to Eastern Constr. Co., 216 Mercantile Bldg., Dallas, Tex., $246,000. Bids 8/3, CD 7/27—ENR 8/3; constructing 20,000 bbl. floating-roof storage tank, Fort Laramie-Wamsutter area, Wyo., in connection with above pipeline, to Chicago Bridge & Iron Co., 1305 W. 105 St., Chicago, Ill., $30,000.

†Wyo., Sheridan — RUNWAYS — Civil Aeronautics Admin., 410 E. 12 St., Kansas City, Mo., airport imprvs., runways, excavation, underground drainage, asphalt paving fields, to Peter Kiewit Sons Co., Omaha Natl. Bank Bldg., Omaha, Neb., $458,961. CD 6/3—ENR 6/15, under LB.

★**B. C., New Westminster** — FISH LADDERS, etc.—International Pacific Salmon Fisheries Co., Dominion Bldg., fish ladders, etc., on Fraser River, to Coast Constr. Co., Ltd., 510 West Hastings St., Vancouver, $514,643. CD 8/15—ENR 8/17, under LB.

Ont., Kirkland Lake—RAILWAY CLEARING, etc.—Temiskaming & Northern Ontario Ry. Comn., S. B. Clement, ch. engr., North Bay, clearing, grading 1.1 mi. diversion line between M.P.57.6 and 58.7, Kirkland Lake Subdivision, to Caswell Constr. Co., Ltd., 56 Rand St. Est. $35,000. CD 7/26—ENR 8/3.

Que., Chutes aux Galets—DAM—Price Bros. Co., Ltd., 65 Ste Anne St., Quebec City, reconstructing dam, day labor. $67,000.

Que., Dorval—HANGAR—Dpt. Munitions & Supply, Ottawa, Ont., hangar annex, No. 1, at airport, to Richard and B. A. Ryan, Ltd., 1202 William St., Montreal.

Proposed Advertisements see p. 23 & 24